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and Review

ligase[All] AND chain[All] AND reaction[A] Search Reset

Docs Per Page: 50 Pub. Date limit: No Limit

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☐ Ku L, 1997 [See Related Articles]
The promise of integrated representative surveys about sexually transmitted diseases and behavior.

Sex Transm Dis 24(5), 299-309 (1997)

☐ Schachter J, 1997 [See Related Articles]
DFA, EIA, PCR, LCR and other technologies: what tests should be used for diagnosis of chlamydia infections?
Immunol Invest 26(1-2), 157-161 (1997)

☐ Lee HH, 1996 [See Related Articles]
Ligase chain reaction.
Biologicals 24(3), 197-199 (1996) (no abstract available)

☐ Hadgu A, 1996 [See Related Articles]
The discrepancy in discrepant analysis
Lancet 348(9027), 592-593 (1996)

☐ LeBar WD, 1996 [See Related Articles]
Keeping up with new technology: new approaches to diagnosis of Chlamydia infection.
Clin Chem 42(5), 809-812 (1996)

☐ Rouwendal GJ, 1996 [See Related Articles]
Ligase chain reaction for site-directed in vitro mutagenesis.
Methods Mol Biol 57, 149-156 (1996) (no abstract available)

☐ Quinn TC, 1995 [See Related Articles]
DNA amplification assays: a new standard for diagnosis of Chlamydia trachomatis infections.
Ann Acad Med Singapore 24(4), 627-633 (1995)

☐ Schaefer BC, 1995 [See Related Articles]
Revolutions in rapid amplification of cDNA ends: new strategies for polymerase chain reaction cloning of full-length cDNA ends.
Anal Biochem 227(2), 255-273 (1995)

☐ Belokhvostov AS, 1995 [See Related Articles]
Polymerase chain reaction and ligase reactions. Principles, traditional methods, and innovations
Mol Gen Mikrobiol Virusol 2, 21-26 (1995)

☐ Taylor GR, 1995 [See Related Articles]
The polymerase chain reaction: new variations on an old theme.

Curr Opin Biotechnol 6(1), 24-29 (1995)

☐ Pfeffer M, 1995 [See Related Articles]
Applications of DNA amplification techniques in veterinary diagnostics.
Vet Res Commun 19(5), 375-407 (1995)

☐ Pawlotsky JM, 1995 [See Related Articles]
Methods of study of the hepatitis C virus genome. Diagnostic tools in human pathology
Vet Res 26(1), 3-10 (1995)

☐ Crotty PL, 1994 [See Related Articles]
Quantitative analysis in molecular diagnostics.
Hum Pathol 25(6), 572-579 (1994)

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☐ Hall SD, 1994 [See Related Articles]
The role of coenzyme A in the biotransformation of 2-arylpropionic acids.
Chem Biol Interact 90(3), 235-251 (1994)

☐ Quinn TC, 1994 [See Related Articles]
Recent advances in diagnosis of sexually transmitted diseases.
Sex Transm Dis 21(2), S19-S27 (1994)

☐ Wiedmann M, 1994 [See Related Articles]
Ligase chain reaction (LCR)--overview and applications.
PCR Methods Appl 3(4), S51-S64 (1994) (no abstract available)

☐ Zebala JA, 1993 [See Related Articles]
Implications for the ligase chain reaction in gastroenterology.
J Clin Gastroenterol 17(2), 171-175 (1993)

☐ Walker GT, 1993 [See Related Articles]
Empirical aspects of strand displacement amplification.
PCR Methods Appl 3(1), 1-6 (1993)

☐ Arens M, 1993 [See Related Articles]
Use of probes and amplification techniques for the diagnosis and prognosis of human immunodeficiency virus (HIV-1) infections.
Diagn Microbiol Infect Dis 16(2), 165-172 (1993)

☐ Abramson RD, 1993 [See Related Articles]
Nucleic acid amplification technologies.
Curr Opin Biotechnol 4(1), 41-47 (1993)

☐ Laffler TG, 1993 [See Related Articles]
The ligase chain reaction in DNA-based diagnosis.
Ann Biol Clin (Paris) 51(9), 821-826 (1993)

☐ Kuhn JE, 1992 [See Related Articles]
Modern procedures in detecting viral antigens
Z Gesamte Inn Med 47(10), 447-451 (1992)

☐ Barany F, 1991 [See Related Articles]
The ligase chain reaction in a PCR world

PCR Methods Appl 1(1), 5-16 (1991) (no abstract available)

☐ Riendeau D, 1985 [See Related Articles]
Enzymatic reduction of fatty acids and acyl-CoAs to long chain aldehydes and alcohols.
Experientia 41(6), 707-713 (1985)

☐ Willison JC, 1983 [See Related Articles]
H2 metabolism in photosynthetic bacteria and relationship to N2 fixation.
Ann Microbiol (Paris) 134B(1), 115-135 (1983)

=> d l10 6-21

6. 5,604,101, Feb. 18, 1997, Method of minimizing contamination in amplification reactions using a reaction tube with a penetrable membrane; Kathleen A. Hanley, et al., 435/6, 91.2 :IMAGE AVAILABLE:

7. 5,603,868, Feb. 18, 1997, Chemiluminescent electron-rich aryl-substituted 1,2-dioxetanes; Nai-Yi Wang, et al., 252/700; 549/215, 219, 220, 221 :IMAGE AVAILABLE:

8. 5,601,978, Feb. 11, 1997, Oligonucleotides and methods for the detection of chlamydia trachomatis; John D. Burczak, et al., 435/6, 91.2; 536/24.32, 24.33; 935/77, 78 :IMAGE AVAILABLE:

9. 5,599,668, Feb. 4, 1997, Light scattering optical waveguide method for detecting specific binding events; Donald I. Stimpson, et al., 435/6, 5, 7.1, 7.2, 91.2 :IMAGE AVAILABLE:

10. 5,595,739, Jan. 21, 1997, Hepatitis B virus mutants, reagents and methods for detection; William F. Carman, et al., 424/189.1, 227.1; 435/5, 235.1, 975; 530/324, 350, 403; 930/220 :IMAGE AVAILABLE:

11. 5,593,825, Jan. 14, 1997, Hepatitis B virus mutants, reagents and methods for detection; William F. Carman, et al., 435/5, 69.3, 252.3, 254.11, 320.1, 325, 352, 362, 367, 975; 536/23.72, 24.32 :IMAGE AVAILABLE:

12. 5,591,440, Jan. 7, 1997, Hepatitis B Virus mutants, reagents and methods for detection; William F. Carman, et al., 424/227.1; 435/235.1, 325 :IMAGE AVAILABLE:

13. 5,585,242, Dec. 17, 1996, Method for detection of nucleic acid using total internal reflectance; Stanley R. Bouma, et al., 435/6, 91.2; 935/77, 78 :IMAGE AVAILABLE:

14. 5,573,907, Nov. 12, 1996, Detecting and amplifying target nucleic acids using exonucleolytic activity; John J. Carrino, et al., 435/6, 91.31, 91.51, 91.52; 536/24.3 :IMAGE AVAILABLE:

15. 5,516,663, May 14, 1996, **Ligase** **chain** reaction with endonuclease IV correction and contamination control; Keith C. Backman, et al., 435/91.2, 6, 91.1; 436/501; 536/22.1, 23.1, 24.1, 24.3, 24.31, 24.32, 24.33; 935/77, 78 :IMAGE AVAILABLE:

16. 5,484,699, Jan. 16, 1996, Nucleotide sequences useful as type specific probes, PCR primers and LCR probes for the amplification and detection of human papilloma virus, and related kits and methods; Stanley R. Bouma, et al., 435/5; 536/23.1, 23.72 :IMAGE AVAILABLE:

17. 5,453,355, Sep. 26, 1995, Oligonucleotides and methods for the detection of Neisseria gonorrhoeae; Larry G. Birkenmeyer, et al., 435/6, 91.2; 536/24.32, 24.33; 935/78 :IMAGE AVAILABLE:

18. 5,427,930, Jun. 27, 1995, Amplification of target nucleic acids using gap filling **ligase** **chain** reaction; Larry G. Birkenmeyer, et al., 435/91.52, 6, 91.2; 536/24.32, 24.33 :IMAGE AVAILABLE:

19. 5,415,839, May 16, 1995, Apparatus and method for amplifying and detecting target nucleic acids; Peter Zaun, et al., 422/64; 219/385, 390,

521, 535; 422/67, 82.05, 104, 109, 119; 435/286.1, 287.2 :IMAGE AVAILABLE:

20. 5,294,533, Mar. 15, 1994, Antisense oligonucleotide antibiotics complementary to the macromolecular synthesis operon, methods of treating bacterial infections and methods for identification of bacteria; James R. Lupski, et al., 435/6, 172.3; 536/24.32 :IMAGE AVAILABLE:

21. 5,290,925, Mar. 1, 1994, Methods, kits, and reactive supports for 3' labeling of oligonucleotides; James R. Fino, 536/25.32; 435/6; 501/33; 524/1 :IMAGE AVAILABLE:

In . . . to the use in the method of the present invention. Either the target sequence or the polynucleotide probe can be **immobilized.** Numerous methods are known for binding **nucleotide** sequences to solid supports. For example see Goldkorn et al., PG,19 Nucleic Acids Research (1986) 14:9171-9191 and the references contained therein. Frequently, the procedures for attaching a **nucleotide** sequence to a support involve chemical modifications of some of the **nucleotides** in the sequence whereby the sequence can then be attached to the support. Preferably, the bond between the support and the **nucleotide** sequence will be covalent, more preferably involving a linking group between the **nucleotide** sequence the support. For example, the support can be treated to introduce maleimide groups and the **nucleotide** sequence can be treated to introduce a thiol group. The thiol group is reactive with the activated **olefin** of the maleimide group and in such a fashion the **nucleotide** sequence can be covalently bound to the support. Examples of other such linking groups are cellulose derivatized with diazobenzyloxymethyl groups. . .

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  s (LCR(s) quantit?) not PY>1995

          Items   File
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              6     2: INSPEC_1969-1997/Nov W3
             10     5: BIOSIS PREVIEWS(R)_1969-1997/Nov W3
              1     6: NTIS_64-1997/Dec W2
              2     9: Business & Industry(R) Jul_1994-1997/Nov 24
              2    16: IAC PROMT(R)_1972-1997/Nov 24
              2    50: CAB Abstracts_1972-1997/Oct
              1    51: Food Sci.&Tech.Abs_1969-1997/Dec
              9    55: BIOSIS PREVIEWS(R)_1985-1997/Nov W3
              8    72: EMBASE_1985-1997/Nov W1
              9    73: EMBASE_1974-1997/Nov W1
              6    76: Life Sciences Collection_1982-1997/Sep
              3    94: JICST-EPlus_1985-1997/Oct W1
              1    98: General Sci Abs/Full-Text_1984-1997/Oct
              5   103: Energy SciTec_1974-1997/Nov B1
            134   144: Pascal_1973-1997/Oct
              1   148: IAC Trade & Industry Database_1976-1997/Nov 24
              1   149: IAC(SM)Health&Wellness DB(SM)_1976-1997/Nov W4
              1   151: HealthSTAR_1975-1997/Nov
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              9   155: MEDLINE(R)_1966-1997/Dec W4
              1   156: Toxline(R)_1965-1997/Oct
              4   159: Cancerlit_1975-1997/Nov
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              3   348: EUROPEAN PATENTS_1978-1997/Nov W2
              2   351: DERWENT WPI_1963-1997/UD=9746;UP=9743;UM=9741
              9   434: Scisearch(R) Cited Ref Sci_1974-1997/Nov W3
              8   440: Current Contents Search(R)_1990-1997/Nov W5
      Examined 100 files
              1   624: McGraw-Hill Publications_1985-1997/Nov 20
              3   636: IAC Newsletter DB(TM)_1987-1997/Nov 24
              3   652: US Patents Fulltext_1971-1979
             22   653: US Pat.Fulltext_1980-1989
             69   654: US PAT.FULL._1990-1997/NOV 18
              5   669: Federal Register_1988-1997/Nov 24
              2   764: BCC Market Research_1989-1997/Nov
              3   765: Frost & Sullivan_1992-1997/Oct
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N3             22   653: US Pat.Fulltext_1980-1989
N4             10     5: BIOSIS PREVIEWS(R)_1969-1997/Nov W3
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       24nov97 15:52:09 User233832 Session D14.3
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SYSTEM:OS  - DIALOG OneSearch
  File 144:Pascal  1973-1997/Oct
         (c) 1997 INIST/CNRS
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  File 434:Scisearch(R) Cited Ref Sci  1974-1997/Nov W3
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         (c)1997 Japan Science and Tech Corp(JST)
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  File 636:IAC Newsletter DB(TM)  1987-1997/Nov 24
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*File 636: Company names are now searchable using /CO and CO=.
  File 652:US Patents Fulltext  1971-1979
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? exs

Executing TDLCR
Hilight option is not available in file(s) 6
HILIGHT set on as '%'
Processing
Processed  10 of  37 files ...
>>>One or more prefixes are unsupported
>>>  or undefined in one or more files.
Processing
Processed  20 of  37 files ...
Completed processing all files
          13132  LCR
        3744517  QUANTIT?
            373  LCR(S)QUANTIT?
       16941455  PY>1995
      S1     292  (LCR(S) QUANTIT?) NOT PY>1995
? rd

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>>>Duplicate detection is not supported for File 348.
>>>Duplicate detection is not supported for File 652.
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>>>Records from unsupported files will be retained in the RD set.
...examined 50 records  (50)
...examined 50 records  (100)
...examined 50 records  (150)
...examined 50 records  (200)
>>>Record 669:63596 ignored; incomplete bibliographic data, not retained in
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...examined 50 records  (250)
...completed examining records
      S2     218  RD (unique items)
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           218  S2
         38535  LIGASE
      S3    17  S2 AND LIGASE
? t s3/3,ab/1-17

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 3/3,AB/1     (Item 1 from file: 5)
DIALOG(R)File   5:BIOSIS PREVIEWS(R)
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11622337     BIOSIS Number: 98222337
  Methods of study of the hepatitis C virus genome: Diagnostic tools in
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human pathology
.Pawlotsky J M
Serv. Bacteriol. Virol., Hop. Henri-Mondor, Univ. Paris-XII, 51 avenue Marechal-de-Lattre-de-Tassigny, 94010 Creteil cedex, France
Veterinary Research (Paris) 26 (1). 1995. 3-10.
Full Journal Title: Veterinary Research (Paris)
ISSN: 0928-4249
Language: FRENCH
Print Number: Biological Abstracts Vol. 099 Iss. 010 Ref. 144513

The study of the molecular biology of infectious agents involves the examination of their genomes and the products of those genomes. Molecular biology methods may therefore allow us to study either DNAs or RNAs. The study of genomic RNAs (viruses) or messenger RNAs (all infectious agents) is used increasingly in infectious disease pathology. The hepatitis C virus was identified in 1989 and was shown to be responsible for a large number of chronic hepatitis cases in France and worldwide. This virus is a good model for the development of technologies to study RNAs, which will later be applied to the study of other viruses. The molecular biology methods used to study hepatitis C virus RNA may be classified into 3 categories. a) Detection methods evidence nucleic acids in fluid or tissue samples, mainly using the polymerase chain reaction (PCR), but also newly developed techniques, Such as the NASBA (nucleic-acid-sequence-based amplification), the Q-beta reaction, and the %LCR% (%ligase% chain reaction), and techniques that localize viral RNAs in tissue (in situ hybridization, in situ PCR). b) %Quantitative% methods determine the amount of RNA present in a sample. These include %quantitative% PCR and new technologies based on signal amplification, such as the 'branched DNA' assays which have recently been developed. c) Qualitative analysis of the genome uses genotyping methods to classify viral strains into different genotypes and subtypes.

3/3,AB/2 (Item 1 from file: 76)
DIALOG(R)File 76:Life Sciences Collection

02020199 3887788
Development of novel, sensitive, nonradioactive, quantitative ELISA-PCR methods potentially applicable to the detection of fetal cells in maternal circulation
Miele, L.; Peri, A.; Cordella Miele, E.; Mukherjee, A.B.
Sect. on Dev. Genet., Hum. Genet. Branch, Natl. Inst. Child Health and Hum. Dev., NIH Bldg. 10, Rm. 9S242, Bethesda, MD 20892, USA
FETAL CELLS IN MATERNAL BLOOD: PROSPECTS FOR NONINVASIVE PRENATAL DIAGNOSIS.
Simpson, J.L.; Elias, S. (eds.)
ANN. N.Y. ACAD. SCI. vol. 731 pp. 246-247 (1994)
ISSN: 0077-8923
CONFERENCE: Fetal Cells in Maternal Blood: Prospects for a Noninvasive Prenatal Diagnosis , Arlington, VA, USA , 1993 Sep 27-29
PUBLISHER: New York Academy of Sciences. New York, NY (USA)
DOCUMENT TYPE: Book; Conference paper; Journal LANGUAGE: ENGLISH
SUBFILE: Medical and Pharmaceutical Biotechnology Abstracts; Biochemistry Abstracts 2: Nucleic Acids

The field of DNA diagnostics, including prenatal diagnostics, has been revolutionized by the introduction of rapid DNA amplification methods such as the polymerase chain reaction (PCR) or the %ligase% chain reaction (%LCR%). These technologies allow the analysis of very small amounts of genomic DNA for the presence of specific alleles or mutations. Nanogram amounts of RNA from clinical specimens can be analyzed by reverse-transcription PCR (RT-PCR) for the presence of specific transcripts. Additionally, infectious agents including eukaryotes, prokaryotes, and viruses can be easily detected by PCR procedures that amplify specific regions of their genomes. The validation of amplified DNA is generally carried out by hybridization with specific probes, either in solution or after blotting onto membranes. Many of these techniques can be applied to the prenatal diagnosis of genomic defects on fetal cells recovered from maternal blood, and at least one method has been published for the diagnosis of fetal sex by nested PCR on maternal blood samples. However, one area in which novel developments are urgently needed is that of nonradiometric techniques for %quantitation% and validation of amplified DNA. Such techniques are indispensable for the processing of large numbers of samples in clinical laboratories, where the use of super(32)P-labeled nucleotides and/or membrane blotting can be time-consuming and expensive and can create occupational and environmental hazards. Several microtiter plate-based nonradiometric techniques for PCR product detection and validation have been described. However, these techniques use either chemically modified or enzymatically labeled oligonucleotides as primers or

probes.

3/3,AB/3 (Item 1 from file: 103)
DIALOG(R)File 103:Energy SciTec

03289143 EDB-92-051900
Title: Hot prospect for new gene amplifier
Source: Science (Washington, D.C.) (United States) v 254:5036. Coden: SCIEA ISSN: 0036-8075
Publication Date: 29 Nov 1991 p 1292-1293
Language: In English
Abstract: Molecular biologist Francis Barany is investigating one of the hottest areas in biotechnology: a gene-amplification technique called %ligase% chain reaction, or %LCR%. Already scientists have used %LCR% to detect the tiny mutation that causes sickle cell anemia and have adapted it to screen for a handful of other genetic diseases simultaneously - in a single test-tube. Some experts, in fact, are predicting that %LCR% will supplement the polymerase chain reaction (PCR), and in some cases even supplant it. %LCR% could revolutionize DNA diagnostics just as PCR transformed basic molecular biology following its introduction 6 years ago. With its ease of automation and ability to produce useful %quantitative% results, %LCR% could become a major player in the rapidly growing market for DNA diagnostics. %LCR%, like PCR, uses snippets of nucleic acid, or oligonucleotides, that anneal to a specific, complementary sequence on the target DNA to be amplified. But where PCR uses oligos that bracket the stretch to be amplified, %LCR% uses pairs of oligos that completely cover the target sequence.

3/3,AB/4 (Item 1 from file: 265)
DIALOG(R)File 265:FEDRIP

00252042
IDENTIFYING NO.: 19190 AGENCY CODE: SBIR
DNA PROBE AMPLIFICATION FOR DETECTING ORAL BACTERIA
PRINCIPAL INVESTIGATOR: Robert Kwiatkowski (*)-
PERFORMING ORG.: Omnigene Inc, 763d Concord Ave; Po Box 9002, Cambridge, MA 02139-1966
SPONSORING ORG.: HHS
DATES: 92 FY : 93 FUNDS: $542,712 (0000000)
SUMMARY: EMMUNERATION OF PORMINENT ORAL BACTERIA TO AID IN ASSESSING CARIES AND PERIODONTAL DISEASES REQUIRES A RELIABLE, %QUANTITATIVE%, SENSITIVE AND SPECIFIC DIAGNOSTIC TEST. NUCLEIC ACID PROBES PROVIDE A RELIABLE AND SPECIFIC DIAGNOSTIC TOOL BUT MAY REQUIRE SIGNAL AMPLIFICATION FOR NECESSARY SENSITIVITY. OMNIGENE HAS DEVELOPED A UNIQUE AMPLICATION SYSTEM CALLED %LIGASE% CHAIN REACTION (%LCR%) WHOSE PERFORMANCE COMPARES FABORABLEY WITH OTHER AVAILABLE AMPLIFICATION METHODS, SUCH AS POLYMERASE CHAIN REACTION (PCR). THE FEASIBILITY OF USING %LCR% AMPLIFICATION PROTOCOLS TO DETECT ORAL BACTERIA HAS BEEN DEMONSTRATED USING A CLONED DNA PORBE WHICH WAS PREVIOUSLY IDENTIFIED AT OMNIGENE, AND SHOWN TO BE SPECIFIC FOR ACTINOBACILLUS ACTINOMYCETEMCOMITANS. IN THIS PHASE I EFFORT, SPECIES-SPECIFIC DNA PROBES WILL BE IDENTIFIED FOR SIX SUPRAGINIGIVAL ORGANISMS. THE USE OF %LCR% AMPLIFICATION REQUIRES WELL-CHARACTERIZED AND SPECIFIC OLIGONUCLEOTIDE PROBES. IN PHASE I, WHOLE GENOMIC DNA WILL BE ISOLATED FROM THE SIX TARGET STRAINS AND DNA LIBRARIES OF EACH CONSTRUCTED. THE CROSS-REACTIVITY BETWEEN THE TARGET SPECIES AND OTHER ORAL BACTERIA WILL BE DETERMINED USING CHROMOSOMAL DNA AS PROBES. THE IDENTIFICATION OF THE MOST CROSS-REACTIVE SPECIES WILL ENABLE AN EFFICIENT SCREENING PROTOCOL TO BE DESIGNED FOR SCREENING THE LIBRARIES IN ORDER TO ISOLATE CLONED SPECIES-SPECIFIC PROBES. IN PHASE II, THE CLONED PROBES ISOLATED IN PHASE I WILL BE SEQUENCED, APPROPRIATE DIAGNOSTIC TARGET REGIONS IDENTIFIED, AND %LCR% PROBE SETS SYNTEHSIZED. THE PROBE SETS WILL BE TESTED IN THE %LCR% FORMAT AND REACTION CONDITIONS DEFINED IN ORDER TO MAXIMIZE THE SPECIFICITY AND SENSITIVITY OF THE SYSTEM. THIS WILL INCLUDE DESIGNING A SAMPLE PREPARATION PROTOCOL WHICH PROVIDES DNA WITH SUFFICIENT PURITY TO PERMIT %LCR% AMPLIFICATION AND IMPLEMENTING A NON-ISOTOPIC READ-OUT FORMAT FOR HANDLING MULTIPLE SAMPLES IN A SHORT TIME. FINALLY, FIELD TESTING REQUIRED FOR REGULATORY REVIEW WOULD BE INITIATED.
PROGRESS REPORT SUMMARY: A RELIABLE DIAGNOSTIC TEST WITH A HIGH DEGREE OF SPECIFICITYAND SENSITIVITY WOULD BE USEFUL IN TWO GENERAL AREAS: 1) INASSESSING CARIES RISK, PERIDONTAL HEALTH AND DISEASE RISKAND 2) IN PERFORMING CLINICAL TRIALS DESIGNED TO EVALUATEORAL HYGIENE PRODUCTS WITH ANTIPLAQUE CLAIMS CURRENTLYAVAILABLE AND UNDER DEVELOPMENT.

3/3,AB/5 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00646322
ORDER fax of complete patent from KR SourceOne. See HELP ORDER348
Decontamination of nucleic acid amplification reactions.
Dekontamination von Nukleinsaure-Amplifikationsreaktionen.
Decontamination de reactions d'amplification d'acides nucleiques.
PATENT ASSIGNEE:
Becton Dickinson and Company, (208883), One Becton Drive, Franklin Lakes, New Jersey 07417-1880, (US), (applicant designated states: BE;DE;ES;FR;GB;IT;NL)
INVENTOR:
Fraiser, Melinda S., 104 East Maynard Avenue, Durham, North Carolina 27704, (US)
Walker, George Terrance, 209 Mt. Bolus Road, Chapel Hill, North Carolina 27514, (US)
Schram, James L., 102 Dwelling Place, Knightdale, North Carolina 27545, (US)
LEGAL REPRESENTATIVE:
Rambelli, Paolo et al (55471), c/o JACOBACCI & PERANI S.p.A. Corso Regio Parco, 27, I-10152 Torino, (IT)
PATENT (CC, No, Kind, Date): EP 624643 A2 941117 (Basic)
EP 624643 A3 950222
APPLICATION (CC, No, Date): EP 94106645 940428;
PRIORITY (CC, No, Date): US 60842 930511
DESIGNATED STATES: BE; DE; ES; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS: C12N-015/10; C12Q-001/68;

ABSTRACT EP 624643 A2
Methods for inactivating contaminating amplicons in isothermal nucleic acid amplification reactions such as SDA, Qb and 3SR. dU is incorporated into the amplicons produced by amplification in the place of thymine (T). If these amplicons contaminate a subsequent amplification reaction, they may be inactivated as templates (i.e., rendered unamplifiable) by treatment with UDG. As isothermal amplification does not involve elevated temperatures, the UDG may be inactivated during the subsequent amplification of specific target sequences by inclusion of the UDG inhibitor protein Ugi. Incorporation of dU has unexpectedly been found to enhance the amplification power of SDA as compared to conventional SDA reactions. The methods may also be used to detect UDG activity in reagents or samples.
ABSTRACT WORD COUNT: 118

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF2	285
SPEC A	(English)	EPABF2	4030
Total word count - document A			4316
Total word count - document B			0
Total word count - documents A + B			4316

3/3,AB/6 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00509939
ORDER fax of complete patent from KR SourceOne. See HELP ORDER348
PROCESS FOR INSULATING NUCLEIC ACIDS FROM CELL SUSPENSIONS.
VERFAHREN ZUR ISOLIERUNG VON NUKLEINSAUREN AUS ZELLSUSPENSIONEN.
PROCEDE DE SEPARATION D'ACIDES NUCLEIQUES CONTENUS DANS DES SUSPENSIONS DE CELLULES.
PATENT ASSIGNEE:
QIAGEN GmbH, (879432), Max-Volmer-Strasse 4, D-40724 Hilden, (DE), (applicant designated states: DE;FR;GB)
INVENTOR:
HENCO, Karsten, Kirchberg 4, D-4006 Erkrath 2, (DE)
COLPAN, Metin, Uhlandstr. 5, D-4300 Essen-Kettwig, (DE)
FEUSER, Petra, Belvedere-Str. 46, D-5000 Koln 41, (DE)
LEGAL REPRESENTATIVE:
Meyers, Hans-Wilhelm, Dr. et al (72541), Patentanwalte von Kreisler-Selting-Werner Postfach 10 22 41, D-50462 Koln, (DE)
PATENT (CC, No, Kind, Date): EP 555270 A1 930818 (Basic)
EP 555270 B1 950503

WO 9207863 920514
APPLICATION (CC, No, Date): EP 91918495 911024; WO 91EP2017 911024
PRIORITY (CC, No, Date): DE 4034036 901026
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS: C07H-001/08;
LANGUAGE (Publication,Procedural,Application): German; German; German
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPAB95	357
CLAIMS B	(German)	EPAB95	315
CLAIMS B	(French)	EPAB95	384
SPEC B	(German)	EPAB95	2115
Total word count - document A			0
Total word count - document B			3171
Total word count - documents A + B			3171

3/3,AB/7 (Item 1 from file: 636)
DIALOG(R)File 636:IAC Newsletter DB(TM)

01611751
DNA Probes: Will Amplification and Other Innovation Make Them a $1 Billion Market? - Comparing Leading Amplification Method - Table 13 Advantages/Disadvantages of PCR, 3SR, LCR, Q-beta Replicase
Genesis Report-Dx May 00, 1992 V. 1 NO. 6
ISSN: 1061-2289 WORD COUNT: 223
PUBLISHER: The Genesis Group Associates, Inc.

3/3,AB/8 (Item 2 from file: 636)
DIALOG(R)File 636:IAC Newsletter DB(TM)

01376549
As Amgen Seeks a Licensee for Its REAC Technology
GENETIC TECHNOLOGY NEWS March 00, 1992 V. 12 NO. 3
ISSN: 0272-9032 WORD COUNT: 145
PUBLISHER: TECHNICAL INSIGHTS, INC.

3/3,AB/9 (Item 3 from file: 636)
DIALOG(R)File 636:IAC Newsletter DB(TM)

01352929
DNA DIAGNOSTICS UPDATE: PCR Goes Into Business
SENSOR TECHNOLOGY February 00, 1992 V. 8 NO. 2
ISSN: 8756-4017 WORD COUNT: 612
PUBLISHER: TECHNICAL INSIGHTS, INC.

3/3,AB/10 (Item 1 from file: 765)
DIALOG(R)File 765:Frost & Sullivan

00233198

FORECASTS OF THE U.S. BACTERIAL SEXUALLY TRANSMITTED DISEASE DIAGNOSTIC MARKET: Forecasts of the Chlamydia Diagnostic Test Market: Chlamydia DNA-Based Test Market: Market Definitions and Overview (2/2)

Main Title: U.S. SEXUALLY TRANSMITTED DISEASE DIAGNOSTIC AND THERAPEUTIC MARKETS
Pub. Date: December 1994
Source: Frost & Sullivan
Telephone: US (415) 961 - 1000; London 071 730 3438
Word Count: 372 (1 pp.)
Language: English

Country: UNITED STATES
Industry: Pharmaceuticals
Company Names (DIALOG Generated): Cetus ; PCR

3/3,AB/11 (Item 1 from file: 9)
DIALOG(R)File 9:Business & Industry(R) Jul

0i094834
DNA PROBES AND AMPLIFICATION SYSTEMS
(Sales of DNA probes and amplification systems were about $100 mil in the United States during 1994, while the forecast is for about $195 mil in 1996)
Medical & Healthcare Marketplace Guide, p 185+
1995
DOCUMENT TYPE: Guide ISSN: 0416-8022 (United States)
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 2264

ABSTRACT:
Sales of DNA probes and amplification systems were about $100 mil in the United States during 1994, while the forecast is for about $195 mil in 1996. In the US, this represents a small share of the multi billion dollar diagnostics market. Worldwide, sales were $217 mil in 1994 and are forecast at about $395 mil in 1996. Moreover, the world market for nucleic acid probes and amplification systems will grow to $500 mil by 2000.

3/3,AB/12 (Item 1 from file: 50)
DIALOG(R)File 50:CAB Abstracts

02518267 CAB Accession Number: 921627103
PCR topics: usage of polymerase chain reaction in genetic and infectious diseases.
Neurologische Klinik des Klinikum Steglitz der FU Berlin, Hindenburgdamm 30, 1000 Berlin 45 Germany.
258pp
Publication Year: 1991
Editors: Rolfs, A.; Schumacher, M. C.; Marx, P.
Publisher: Springer-Verlag Berlin, Germany
ISBN: 0-387-52934-9; 3-540-52934-9
Language: English
Document Type: Book
The emphasis of this book developed from a conference with the same subtitle (Berlin, June 1990), is on medical applications, but the 43 short chapters contain useful information on the technique per se which will help those seeking to use it elsewhere. The first section on basic methodology and research applications includes the following chapters: %quantitation% of mRNA by the polymerase chain reaction; alternative methods for DNA probing in diagnosis: %ligase% chain reaction (%LCR%); Taq DNA polymerase-synthesized single-stranded DNA hybridization probes and their application in northern blotting and in situ hybridization; computer program for the selection of PCR primers; the use of short adaptors for priming PCR of unknown chromosomal fragments; labelling of specific DNA sequences with digoxigenis during polymerase chain reaction; %quantitative% analysis of polymerase chain reaction (PCR) products by means of fluorescence detection; false positive reactions in PCR; and error production and error propagation during PCR. Other chapters are related to specific viral and bacterial diseases of man and to oncogenes.

3/3,AB/13 (Item 2 from file: 50)
DIALOG(R)File 50:CAB Abstracts

02505813 CAB Accession Number: 921626517
Hot prospect for new gene amplifier.
Weiss, R.
Science (Washington) vol. 254 (5036): p.1292-1293
Publication Year: 1991
ISSN: 0036-8075
Language: English
Document Type: Journal article
The principle of the %ligase% chain reaction (%LCR%) is explained. It has the following advantages over the polymerase chain reaction: it amplifies a known sequence (and is thus more applicable to diagnostic testing), is more easily automated and gives %quantitative% results. A box details a scramble for patent rights', charting the various claims made on %LCR%, particularly regarding the use of a thermostable DNA %ligase%. Various medical applications of %LCR% are outlined.

3/3,AB/14 (Item 1 from file: 351)

DIALOG(R)File 351:DERWENT WPI
(c)1997 Derwent Info Ltd. All rts. reserv.

009365329
WPI Acc No: 93-058808/199307
XRAM Acc No: C93-026322
  %Quantitative% nucleic acid amplification determination - using restriction digestion to compare control and target DNA, useful for quantifying e.g. %LCR%
Patent Assignee: ROYAL FREE HOSPITAL SCHOOL MED (ROYA-N)
Inventor: FOX J; GRIFFITHS P
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
WO 9302215	A1	19930204	WO 92GB1355	A	19920723	C12Q-001/68	199307 B

Priority Applications (No Type Date): GB 9116042 A 19910724
Filing Details:

Patent	Kind	Filing Notes	Application	Patent
WO 9302215	A1			

   Designated States (National): JP US
   Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LU MC NL SE
Language, Pages: WO 9302215 (E, 42)

Abstract (Basic): WO 9302215 A
Method comprises: (i) mixing the sample with predetermined amt. of control nucleic acid having control region which includes at least one primer binding region homologous to a primer binding region in selected region of target; (ii) brining the mixt. formed in (i) into contact with at least one nucleic acid primer (P) capable of binding to the primer binding region of (T) and control nucleic acids; (iii) performing nucleic acid amplification reaction in the presence of (P) to amplify the selected region of (T) and the control region of the control nucleic acid; (iv) determining the relative quantities of the amplified control region and selected region nucleic acids; and (v) calculating from the determination of (IV) the amt. of (T) in the sample.
USE/ADVANTAGE - The rapid, simple methodology allows nucleic acid amplification systems such as PCR, NASBA or LCR to be quantified.
Dwg. 0/6

3/3,AB/15 (Item 1 from file: 764)
DIALOG(R)File 764:BCC Market Research
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00059231

IMMUNOASSAYS AND GENE PROBES: REPORTER TECHNOLOGY: EVOLVING TECHNOLOGIES: HIV DETECTION AND DNA AMPLIFICATION

Main Title: LABELING AND LINKAGE AGENTS FOR IMMUNOASSAYS AND GENE PROBES
Pub. Date: DECEMBER 1992
Source: BUSINESS COMMUNICATIONS COMPANY
Telephone: (203) 853-4266
Word Count: 434 (1 pp.)
Language: English

Country: UNITED STATES
Industry: CHEMICALS, BIOTECHNOLOGY
Company Names (DIALOG Generated): Calgene ; Cetus ; Gene Trak Systems ; Hoffmann LaRoche ; Organon Teknika ; PCR

3/3,AB/16 (Item 2 from file: 764)
DIALOG(R)File 764:BCC Market Research
(c) 1997 Business Communication Co. All rts. reserv.

00040841

ENZYMES FOR SPECIALTY USE: GENE AMPLIFICATION: PART II

Main Title: THE ENZYME INDUSTRY: SPECIALTY AND MEDICAL APPLICATIONS
Pub. Date: JULY 1994
Source: BUSINESS COMMUNICATIONS COMPANY
Telephone: (203) 853-4266
Word Count: 511 (1 pp.)
Language: English

#1 nucleic acid hybridization (chip or array)
#2 #1 and PCR

TI: Sequence analysis by hybridization with oligonucleotide microchip: identification of beta-thalassemia mutations.
AU: Drobyshev-A; Mologina-N; Shik-V; Pobedimskaya-D; Yershov-G; Mirzabekov-A
SO: Gene. 1997 Mar 25; 188(1): 45-52
ISSN: 0378-1119
LA: ENGLISH
AB: Diagnostics for genetic diseases were run and sequence analysis of DNA was carried out by hybridization of RNA transcripts with oligonucleotide array microchips. Polyacrylamide gel pads (100 x 100 x 20 microm) were fixed on a glass slide of the microchip and contained allele-specific immobilized oligonucleotides (10-mers). The RNA transcripts of PCR-amplified genomic DNA were fluorescently labeled by enzymatic or chemical methods and hybridized with the microchips. The simultaneous measurement in real time of the hybridization and melting on the entire oligonucleotide array was carried out with a fluorescence microscope equipped with CCD camera. The monitoring of the hybridization specificity for duplexes with different stabilities and AT content was enhanced by its measurement at optimal, discrimination temperatures on melting curves. Microchip diagnostics were optimized by choosing the proper allele-specific oligonucleotides from among the set of overlapping oligomers. The accuracy of mutation detection can be increased by simultaneous hybridization of the microchip with two differently labeled samples and by parallel monitoring their hybridization with a multi-wavelength fluorescence microscope. The efficiency and reliability of the sequence analysis were demonstrated with diagnostics for beta-thalassemia mutations.
AN: 97254448

TI: Efficiency of sequencing by hybridization on oligonucleotide matrix supplemented by measurement of the distance between DNA segments.
AU: Lysov-YP; Gnuchev-FN; Mironov-AA; Chernyi-AA; Beattie-KL; Mirzabekov-AD
SO: DNA-Seq. 1996; 6(2): 65-73
ISSN: 1042-5179
LA: ENGLISH
AB: DNA sequencing by hybridization on oligonucleotide microchip (SHOM) allows the determination of a spectrum of overlapping oligonucleotides constituting a DNA fragment that hybridizes to form perfect duplexes with an array of immobilized oligonucleotides and, as a result, enables reconstitution of the nucleotide sequence of the fragment. In longer DNA fragments, unambiguous reconstitution of DNA sequence is often impeded by the presence of repetitive regions and simple sequence repeats. Here it is demonstrated that SHOM supplemented by measurement of the distance between certain sites (for example, restriction sites or priming sites for PCR) within the analyzed DNA enables sequencing of much longer DNA fragments, containing repeats of different complexity.
AN: 97063436

TI: Quantitative phenotypic analysis of yeast deletion mutants using a highly

Country: UNITED STATES
Industry: CHEMICALS, PHARMACEUTICALS
Company Names (DIALOG Generated): Baxter Diagnostics ; Cangene ; Hoffmann La Roche ; ID Biomedical ; Perkin Elmer ; Public Health ; PCR ; Research Institute

3/3,AB/17 (Item 1 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database

07886125 SUPPLIER NUMBER: 16925107 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Launching a DNA lab.
Farkas, Daniel H.
Medical Laboratory Observer, v27, n5, p42(7)
May, 1995
ISSN: 0580-7247 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 4439 LINE COUNT: 00382

ABSTRACT: The increased use of molecular pathology as a diagnostic tool has increased test volume of diseases in laboratories. To cope up with the demand, many labs are contemplating on establishing their own molecular diagnostics laboratory. In deciding whether to set up a DNA laboratory, it is important to determine the market for molecular testing and the preparedness of the laboratory to handle costs of constructing a new lab, purchasing equipment and staffing. The laboratory can specialize in either conducting Southern blot testing, which detects genetic mutations or deletions, or polymerase chain reaction testing, which analyzes DNA sequences.
? ds

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S2	218	RD (unique items)
S3	17	S2 AND LIGASE

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(c) format only 1997 Knight-Ridder Info
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(c)1997 Japan Science and Tech Corp(JST)
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File 652:US Patents Fulltext 1971-1979
(c) format only 1997 Knight-Ridder Info

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         (c) 1997 Resp. DB Svcs.
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         (c) 1997 CAB International
File 351:DERWENT WPI 1963-1997/UD=9746;UP=9743;UM=9741
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         Comp&distr 1997 NTIS, Intl Copyright All Rights Re
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             $0.00    0.000 Hrs File772
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      $0.00  Estimated cost File790
             $0.06    0.001 Hrs File8
      $0.06  Estimated cost File8
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□x050fjxh
 ********
Welcome to DIALOG

Dialog level 97.10.03D

Last logoff:  24nov97 15:41:24
Logon file001 24nov97 15:45:48
* * * File 266 is temporarily unavailable * * *

File   1:ERIC  1966-1997/Sep
       (c) format only 1997 Knight-Ridder Info

      Set  Items  Description
      ---  -----  -----------
? b 410

       24nov97 15:45:53 User233832 Session D14.1
            $0.03    0.001 Hrs File1
     $0.03  Estimated cost File1
     $0.03  Estimated cost this search
     $0.03  Estimated total session cost   0.001 Hrs.

File 410:Chronolog(R)  1981-1997/Nov
       (c) 1997 Knight-Ridder Info

      Set  Items  Description
      ---  -----  -----------
? set hi ;set hi

HILIGHT set on as ''
HILIGHT set on as ''
? begin 411

       24nov97 15:46:13 User233832 Session D14.2
            $0.00    0.005 Hrs File410
     $0.00  Estimated cost File410
     $0.00  Estimated cost this search
     $0.03  Estimated total session cost   0.006 Hrs.
File 411:DIALINDEX(R)

DIALINDEX(R)
   (c) 1997 Knight-Ridder Info

*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
? s (LCR(s) quantit?) not PY>1995

>>>No files selected.  Use SET FILES to choose at least two files; then use
        SELECT alone to reissue this SELECT statement.
? set files allmed

   You have 142 files in your file list.
   (To see banners, use SHOW FILES command)
? s (LCR(s) quantit?) not PY>1995


Your SELECT statement is:
```

parallel molecular bar-coding strategy [see comments]
AU: Shoemaker-DD; Lashkari-DA; Morris-D; Mittmann-M; Davis-RW
SO: Nat-Genet. 1996 Dec; 14(4): 450-6
ISSN: 1061-4036
LA: ENGLISH
AB: A quantitative and highly parallel method for analysing deletion mutants has been developed to aid in determining the biological function of thousands of newly identified open reading frames (ORFs) in Saccharomyces cerevisiae. This approach uses a PCR targeting strategy to generate large numbers of deletion strains. Each deletion strain is labelled with a unique 20-base tag sequence that can be detected by hybridization to a high-density oligonucleotide array. The tags serve as unique identifiers (molecular bar codes) that allow analysis of large numbers of deletion strains simultaneously through selective growth conditions. Hybridization experiments show that the arrays are specific, sensitive and quantitative. A pilot study with 11 known yeast genes suggests that the method can be extended to include all of the ORFs in the yeast genome, allowing whole genome analysis with a single selective growth condition and a single hybridization.
AN: 97099456

MEDLINE EXPRESS (R) 1992-1996 4 of 6
Marked in Search: #11
TI: Cystic fibrosis mutation detection by hybridization to light-generated DNA probe arrays.
AU: Cronin-MT; Fucini-RV; Kim-SM; Masino-RS; Wespi-RM; Miyada-CG
SO: Hum-Mutat. 1996; 7(3): 244-55
ISSN: 1059-7794
LA: ENGLISH
AB: We have combined photochemistry and photolithography with solid-phase DNA synthesis chemistry to form a new technology that makes high density oligonucleotide probe array synthesis possible. Hybridization to these two-dimensional arrays containing hundreds or thousands of oligonucleotide probes provides a powerful DNA sequence analysis tool. Two types of light-generated DNA probe arrays have been used to test for a variety of mutations in the cystic fibrosis transmembrane conductance regulator (CFTR) gene. One array, made up of 428 probes, was designed to scan through the length of CFTR exon 11 and identify differences from the wild type reference sequence. The second type of array contained 1480 probes chosen to detect known deletions, insertions, or base substitution mutations. The validity of the probe arrays was established by hybridizing them with fluorescently labeled control oligonucleotide targets. Characterized mutant CFTR genomic DNA samples were then used to further test probe array hybridization specificity. Finally, ten unknown patient samples were genotyped using the CFTR probe array assay. The genotype assignments were identical to those obtained by PCR product restriction fragment analysis. Our results show that light-generated DNA probe arrays are highly effective in analyzing complex mutation and polymorphism patterns in a relatively large gene such as CFTR.
AN: 96271988

MEDLINE EXPRESS (R) 1992-1996 5 of 6
Marked in Search: #11
TI: DNA analysis and diagnostics on oligonucleotide microchips.
AU: Yershov-G; Barsky-V; Belgovskiy-A; Kirillov-E; Kreindlin-E; Ivanov-I; Parinov-S; Guschin-D; Drobishev-A; Dubiley-S; Mirzabekov-A
SO: Proc-Natl-Acad-Sci-U-S-A. 1996 May 14; 93(10): 4913-8
ISSN: 0027-8424
LA: ENGLISH
AB: We present a further development in the technology of sequencing by hybridization to oligonucleotide microchips (SHOM) and its application to diagnostics for genetic diseases. A robot has been constructed to manufacture

sequencing "microchips." The microchip is an array of oligonucleotides immobilized into gel elements fixed on a glass plate. Hybridization of the microchip with fluorescently labeled DNA was monitored in real time simultaneously for all microchip elements with a two-wavelength fluorescent microscope equipped with a charge-coupled device camera. SHOM has been used to detect beta-thalassemia mutations in patients by hybridizing PCR-amplified DNA with the microchips. A contiguous stacking hybridization technique has been applied for the detection of mutations; it can simplify medical diagnostics and enhance its reliability. The use of multicolor monitoring of contiguous stacking hybridization is suggested for large-scale diagnostics and gene polymorphism studies. Other applications of the SHOM technology are discussed.
AN: 96209832

MEDLINE EXPRESS (R) 1992-1996 6 of 6
Marked in Search: #11

TI: Direct fluorescence analysis of genetic polymorphisms by hybridization with oligonucleotide arrays on glass supports.
AU: Guo-Z; Guilfoyle-RA; Thiel-AJ; Wang-R; Smith-LM
SO: Nucleic-Acids-Res. 1994 Dec 11; 22(24): 5456-65
ISSN: 0305-1048
LA: ENGLISH

QP620.N8

AB: A simple and rapid method for the analysis of genetic polymorphisms has been developed using allele-specific oligonucleotide arrays bound to glass supports. Allele-specific oligonucleotides are covalently immobilized on glass slides in arrays of 3 mm spots. Genomic DNA is amplified by PCR using one fluorescently tagged primer oligonucleotide and one biotinylated primer oligonucleotide. The two complementary DNA strands are separated, the fluorescently tagged strand is hybridized to the support-bound oligonucleotide array, and the hybridization pattern is detected by fluorescence scanning. Multiple polymorphisms present in the PCR product may be detected in parallel. The effect of spacer length, surface density and hybridization conditions were evaluated, as was the relative efficacy of hybridization with single or double-stranded PCR products. The utility of the method was demonstrated in the parallel analysis of 5 point mutations from exon 4 of the human tyrosinase gene.
AN: 95116340

Genomics 13 935-941

QH424.G46

nucleotide means (array on chip)

MEDLINE EXPRESS (R) 1992-1996 1 of 8
Marked in Search: #3

TI: DNA sequence determination by hybridization: a strategy for efficient large-scale sequencing [published erratum appears in Science 1994 Feb 4;163(5147):596]
AU: Drmanac-R; Drmanac-S; Strezoska-Z; Paunesku-T; Labat-I; Zeremski-M; Snoddy-J; Funkhouser-WK; Koop-B; Hood-L; et-al
SO: Science. 1993 Jun 11; 260(5114): 1649-52
ISSN: 0036-8075
LA: ENGLISH
AN: 93276291

MEDLINE EXPRESS (R) 1/97-9/97 2 of 8
Marked in Search: #6

TI: Truce likely in battle over 'DNA-chip' patent rights [news]
AU: Butler-D
SO: Nature. 1997 May 15; 387(6630): 221
ISSN: 0028-0836
LA: ENGLISH
AN: 97297746

Q1, N2

MEDLINE EXPRESS (R) 1/97-9/97 3 of 8
Marked in Search: #6

TI: Combining the preparation of oligonucleotide arrays and synthesis of high-quality primers.
AU: Weiler-J; Hoheisel-JD
SO: Anal-Biochem. 1996 Dec 15; 243(2): 218-27
ISSN: 0003-2697
LA: ENGLISH
AN: 97115751

MEDLINE EXPRESS (R) 1992-1996 4 of 8
Marked in Search: #6

TI: DNA sequence recognition by hybridization to short oligomers.
AU: Milosavljevic-A
SO: J-Comput-Biol. 1995 Summer; 2(2): 355-70
ISSN: 1066-5277
LA: ENGLISH
AN: 96089053

MEDLINE EXPRESS (R) 1992-1996 5 of 8
Marked in Search: #6

TI: DNA sequencing on a chip.
AU: Noble-D
SO: Anal-Chem. 1995 Mar 1; 67(5): 201A-204A
ISSN: 0003-2700
LA: ENGLISH
AN: 95283060

MEDLINE EXPRESS (R) 1992-1996 6 of 8
Marked in Search: #6

TI: Gray code masks for sequencing by hybridization.

AU: Feldman-W; Pevzner-P
SO: Genomics. 1994 Sep 1; 23(1): 233-5
ISSN: 0888-7543
LA: ENGLISH
AN: 95130086

MEDLINE EXPRESS (R) 1992-1996 7 of 8
Marked in Search: #6

TI: Direct detection of nucleic acid hybridization on the surface of a charge coupled device.
AU: Lamture-JB; Beattie-KL; Burke-BE; Eggers-MD; Ehrlich-DJ; Fowler-R; Hollis-MA; Kosicki-BB; Reich-RK; Smith-SR; et-al
SO: Nucleic-Acids-Res. 1994 Jun 11; 22(11): 2121-5
ISSN: 0305-1048
LA: ENGLISH
AN: 94301797

MEDLINE EXPRESS (R) 1991 8 of 8
Marked in Search: #6

TI: Will "DNA chip" speed genome initiative? [news]
AU: Barinaga-M
SO: Science. 1991 Sep 27; 253(5027): 1489
ISSN: 0036-8075
LA: ENGLISH
AN: 91376659

MEDLINE EXPRESS (R) 1992-1996 1 of 53
TI: Method for quantitation of low-abundance nerve growth factor mRNA expression in human nervous tissue using competitive reverse transcription polymerase chain reaction.
AU: St-Amand-D; Pottage-C; Henry-P; Fahnestock-M
SO: DNA-Cell-Biol. 1996 May; 15(5): 415-22
ISSN: 1044-5498
LA: ENGLISH
AN: 96211167

MEDLINE EXPRESS (R) 1992-1996 2 of 53
TI: Quantitation of polymerase chain reaction-amplified DNA fragments by capillary electrophoresis and laser-induced fluorescence detection.
AU: Vincent-U; Patra-H; Therasse-J; Gareil-P
SO: Electrophoresis. 1996 Mar; 17(3): 512-7
ISSN: 0173-0835
LA: ENGLISH
AN: 96314050

MEDLINE EXPRESS (R) 1992-1996 3 of 53
TI: Simultaneous quantitation of cytokine mRNAs by reverse transcription-polymerase chain reaction using multiple internal standard cRNAs.
AU: Alms-WJ; Braun-Elwert-L; James-SP; Yurovsky-VV; White-B
SO: Diagn-Mol-Pathol. 1996 Jun; 5(2): 88-97
ISSN: 1052-9551
LA: ENGLISH
AN: 96350842

MEDLINE EXPRESS (R) 1992-1996 4 of 53
TI: Detection and quantitation of perlecan mRNA levels in Alzheimer's disease and normal aged hippocampus by competitive reverse transcription-polymerase chain reaction.
AU: Maresh-GA; Erezyilmaz-D; Murry-CE; Nochlin-D; Snow-AD
SO: J-Neurochem. 1996 Sep; 67(3): 1132-44
ISSN: 0022-3042
LA: ENGLISH
AN: 96355755

MEDLINE EXPRESS (R) 1992-1996 5 of 53
TI: Detection and quantitation of melanoma cells in the circulation of patients.
AU: Curry-BJ; Smith-MJ; Hersey-P
SO: Melanoma-Res. 1996 Feb; 6(1): 45-54
ISSN: 0960-8931
LA: ENGLISH
AN: 96213704

MEDLINE EXPRESS (R) 1992-1996 6 of 53
TI: Differential regulation of macrophage scavenger receptor isoforms: mRNA quantification using the polymerase chain reaction.
AU: Dufva-M; Svenningsson-A; Hansson-GK
SO: J-Lipid-Res. 1995 Nov; 36(11): 2282-90

ISSN: 0022-2275
LA: ENGLISH
AN: 96229375

MEDLINE EXPRESS (R) 1992-1996 7 of 53
TI: Quantitation of bcl-2 oncogene in cultured lymphoma/leukemia cell lines and in primary leukemia B-cells by a highly sensitive RT-PCR method.
AU: Quattrone-A; Papucci-L; Santini-V; Schiavone-N; Noferini-D; Calastretti-A; Copreni-E; Morelli-S; Rossi-Ferrini-PL; Nicolin-A; et-al
SO: Haematologica. 1995 Nov-Dec; 80(6): 495-504
ISSN: 0390-6078
LA: ENGLISH
AN: 96226655

MEDLINE EXPRESS (R) 1992-1996 8 of 53
TI: Development of competitive PCR and the QPCR system 5000 as a transcription-based screen.
AU: Wilkinson-ET; Cheifetz-S; De-Grandis-SA
SO: PCR-Methods-Appl. 1995 Jun; 4(6): 363-7
ISSN: 1054-9803
LA: ENGLISH
AN: 96000078

MEDLINE EXPRESS (R) 1992-1996 9 of 53
TI: Quantitation of intratumoral thymidylate synthase expression predicts for resistance to protracted infusion of 5-fluorouracil and weekly leucovorin in disseminated colorectal cancers: preliminary report from an ongoing trial.
AU: Leichman-L; Lenz-HJ; Leichman-CG; Groshen-S; Danenberg-K; Baranda-J; Spears-CP; Boswell-W; Silberman-H; Ortega-A; et-al
SO: Eur-J-Cancer. 1995 Jul-Aug; 31A(7-8): 1306-10
ISSN: 0959-8049
LA: ENGLISH
AN: 96046348

MEDLINE EXPRESS (R) 1992-1996 10 of 53
TI: Quantitative PCR for human herpesviruses 6 and 7.
AU: Secchiero-P; Zella-D; Crowley-RW; Gallo-RC; Lusso-P
SO: J-Clin-Microbiol. 1995 Aug; 33(8): 2124-30
ISSN: 0095-1137
LA: ENGLISH
AN: 96057598

MEDLINE EXPRESS (R) 1992-1996 11 of 53
TI: Competitive reverse-transcriptase polymerase chain reaction without an artificial internal standard.
AU: Zenilman-ME; Graham-W; Tanner-K; Shuldiner-AR
SO: Anal-Biochem. 1995 Jan 1; 224(1): 339-46
ISSN: 0003-2697
LA: ENGLISH
AN: 95225460

MEDLINE EXPRESS (R) 1992-1996 12 of 53
TI: Expression of interleukin-3 and tumor necrosis factor-beta mRNAs in cultured microglia.
AU: Appel-K; Honegger-P; Gebicke-Haerter-PJ
SO: J-Neuroimmunol. 1995 Jul; 60(1-2): 83-91
ISSN: 0165-5728
LA: ENGLISH
AN: 95370424

MEDLINE EXPRESS (R) 1992-1996 13 of 53
TI: Quantitation of IL-1 beta mRNA by a combined method of RT-PCR and an ELISA based on ion-sensitive field effect transistor.
AU: Tsuruta-H; Matsui-S; Oka-K; Namba-T; Shinngu-M; Nakamura-M
SO: J-Immunol-Methods. 1995 Mar 27; 180(2): 259-64
ISSN: 0022-1759
LA: ENGLISH
AN: 95230087

MEDLINE EXPRESS (R) 1992-1996 14 of 53
TI: Random primer p(dN)6-digoxigenin labeling for quantitation of mRNA by Q-RT-PCR and ELISA.
AU: Lear-W; McDonnel-M; Kashyap-S; Boer-PH
SO: Biotechniques. 1995 Jan; 18(1): 78-80, 82-3
ISSN: 0736-6205
LA: ENGLISH
AN: 95217460

MEDLINE EXPRESS (R) 1992-1996 15 of 53
TI: Quantitation of HCV-replication using one-step competitive reverse transcription-polymerase chain reaction and a solid phase, colorimetric detection method.
AU: Goergen-B; Jakobs-S; Symmons-P; Hornes-E; Meyer-zum-Buschenfelde-KH; Gerken-G
SO: J-Hepatol. 1994 Oct; 21(4): 678-82
ISSN: 0168-8278
LA: ENGLISH
AN: 95114325

MEDLINE EXPRESS (R) 1992-1996 16 of 53
TI: Quantitation of metallothionein mRNA by RT-PCR and chemiluminescence.
AU: Jessen-Eller-K; Picozza-E; Crivello-JF
SO: Biotechniques. 1994 Nov; 17(5): 962-73
ISSN: 0736-6205
LA: ENGLISH
AN: 95143032

MEDLINE EXPRESS (R) 1992-1996 17 of 53
TI: Detection and quantitation of 5-HT1A and 5-HT2A receptor mRNAs in human hippocampus using a reverse transcriptase-polymerase chain reaction (RT-PCR) technique and their correlation with binding site densities and age.
AU: Burnet-PW; Eastwood-SL; Harrison-PJ
SO: Neurosci-Lett. 1994 Aug 29; 178(1): 85-9
ISSN: 0304-3940
LA: ENGLISH
AN: 95116029

MEDLINE EXPRESS (R) 1992-1996 18 of 53
TI: An improved RT-PCR protocol for the quantitation of human retinoic acid receptor RNA.
AU: Ferrari-N; Pfeffer-U; Tosetti-F; Brigati-C; Vidali-G
SO: Exp-Cell-Res. 1994 Mar; 211(1): 121-6
ISSN: 0014-4827
LA: ENGLISH
AN: 94170865

MEDLINE EXPRESS (R) 1992-1996 19 of 53
TI: Quantitation of latency established by attenuated strains of Pseudorabies (Aujeszky's disease) virus.
AU: Schang-LM; Osorio-FA

SO: J-Virol-Methods. 1994 Dec; 50(1-3): 269-80
ISSN: 0166-0934
LA: ENGLISH
AN: 95229767

MEDLINE EXPRESS (R) 1992-1996 20 of 53
TI: PCR analysis of human renal biopsies--renin gene regulation in glomerulonephritis.
AU: Wagner-J; Drab-M; Gehlen-F; Langheinrich-M; Volk-S; Ganten-D; Ritz-E
SO: Kidney-Int. 1994 Dec; 46(6): 1542-5
ISSN: 0085-2538
LA: ENGLISH
AN: 95214378

MEDLINE EXPRESS (R) 1992-1996 21 of 53
TI: Quantitative polymerase chain reaction for hepatitis B virus DNA.
AU: Wu-J; Sullivan-DE; Gerber-MA
SO: J-Virol-Methods. 1994 Oct; 49(3): 331-41
ISSN: 0166-0934
LA: ENGLISH
AN: 95173154

MEDLINE EXPRESS (R) 1992-1996 22 of 53
TI: Theoretical and functional aspects of measuring insulin-like growth factor-I mRNA expression in myeloid cells.
AU: Arkins-S; Liu-Q; Kelley-KW
SO: Immunomethods. 1994 Aug; 5(1): 8-20
ISSN: 1058-6687
LA: ENGLISH
AN: 95144466

MEDLINE EXPRESS (R) 1992-1996 23 of 53
TI: Quantitation of polymerase chain reaction products by capillary electrophoresis using laser fluorescence.
AU: Butler-JM; McCord-BR; Jung-JM; Wilson-MR; Budowle-B; Allen-RO
SO: J-Chromatogr-B-Biomed-Appl. 1994 Aug 19; 658(2): 271-80
ISSN: 0378-4347
LA: ENGLISH
AN: 95120141

MEDLINE EXPRESS (R) 1992-1996 24 of 53
TI: Polymerase chain reaction kinetics when using a positive internal control target to quantitatively detect cytomegalovirus target sequences.
AU: Chan-A; Zhao-J; Krajden-M
SO: J-Virol-Methods. 1994 Jul; 48(2-3): 223-36
ISSN: 0166-0934
LA: ENGLISH
AN: 95081241

MEDLINE EXPRESS (R) 1992-1996 25 of 53
TI: Quantitation of interferon gamma mRNA levels in psoralen/UVA-treated HUT-78 cells by competitive PCR.
AU: Saed-GM; Fivenson-DP
SO: Biochem-Biophys-Res-Commun. 1994 Sep 15; 203(2): 935-42
ISSN: 0006-291X
LA: ENGLISH
AN: 94380079

MEDLINE EXPRESS (R) 1992-1996 26 of 53
TI: Low density lipoprotein receptor and 3-hydroxy-3-methylglutaryl coenzyme A

reductase gene expression in human mononuclear leukocytes is regulated coordinately and parallels gene expression in human liver.
AU: Powell-EE; Kroon-PA
SO: J-Clin-Invest. 1994 May; 93(5): 2168-74
ISSN: 0021-9738
LA: ENGLISH
AN: 94237984

MEDLINE EXPRESS (R) 1992-1996 27 of 53
TI: Prospective monitoring and quantitation of residual blasts in childhood acute lymphoblastic leukemia by polymerase chain reaction study of delta and gamma T-cell receptor genes.
AU: Cave-H; Guidal-C; Rohrlich-P; Delfau-MH; Broyart-A; Lescoeur-B; Rahimy-C; Fenneteau-O; Monplaisir-N; d'Auriol-L; et-al
SO: Blood. 1994 Apr 1; 83(7): 1892-902
ISSN: 0006-4971
LA: ENGLISH
AN: 94191256

MEDLINE EXPRESS (R) 1992-1996 28 of 53
TI: Riboprobe expression cassettes for measuring IGF-I, beta-actin and glyceraldehyde 3-phosphate dehydrogenase transcripts.
AU: Biragyn-A; Arkins-S; Kelley-KW
SO: J-Immunol-Methods. 1994 Feb 10; 168(2): 235-44
ISSN: 0022-1759
LA: ENGLISH
AN: 94141223

MEDLINE EXPRESS (R) 1992-1996 29 of 53
TI: Detection of allergen- and mitogen-induced human cytokine transcripts using a competitive polymerase chain reaction.
AU: Huang-SK; Essayan-DM; Krishnaswamy-G; Yi-M; Kumai-M; Su-SN; Xiao-HQ; Lichtenstein-LM; Liu-MC
SO: J-Immunol-Methods. 1994 Feb 10; 168(2): 167-81
ISSN: 0022-1759
LA: ENGLISH
AN: 94141215

MEDLINE EXPRESS (R) 1992-1996 30 of 53
TI: Bcl-2 gene is highly expressed during neurogenesis in the central nervous system.
AU: Abe-Dohmae-S; Harada-N; Yamada-K; Tanaka-R
SO: Biochem-Biophys-Res-Commun. 1993 Mar 31; 191(3): 915-21
ISSN: 0006-291X
LA: ENGLISH
AN: 93221536

MEDLINE EXPRESS (R) 1992-1996 31 of 53
TI: Quantitation of changes in the expression of multiple genes by simultaneous polymerase chain reaction.
AU: Dukas-K; Sarfati-P; Vaysse-N; Pradayrol-L
SO: Anal-Biochem. 1993 Nov 15; 215(1): 66-72
ISSN: 0003-2697
LA: ENGLISH
AN: 94127705

MEDLINE EXPRESS (R) 1992-1996 32 of 53
TI: Construction of recombinant RNA templates for use as internal standards in quantitative RT-PCR.
AU: Vanden-Heuvel-JP; Tyson-FL; Bell-DA

SO: Biotechniques. 1993 Mar; 14(3): 395-8
ISSN: 0736-6205
LA: ENGLISH
AN: 93207768

MEDLINE EXPRESS (R) 1992-1996 33 of 53
TI: Competitor mRNA fragments for quantitation of cytokine specific transcripts in cell lysates.
AU: Kozbor-D; Hyjek-E; Wiaderkiewicz-R; Wang-Z; Wang-M; Loh-E
SO: Mol-Immunol. 1993 Jan; 30(1): 1-7
ISSN: 0161-5890
LA: ENGLISH
AN: 93109365

MEDLINE EXPRESS (R) 1992-1996 34 of 53
TI: Competitive PCR for quantitation of gonadotropin-releasing hormone mRNA level in a single micropunch of the rat preoptic area.
AU: Kim-K; Jarry-H; Knoke-I; Seong-JY; Leonhardt-S; Wuttke-W
SO: Mol-Cell-Endocrinol. 1993 Nov; 97(1-2): 153-8
ISSN: 0303-7207
LA: ENGLISH
AN: 94192854

MEDLINE EXPRESS (R) 1992-1996 35 of 53
TI: Quantitative polymerase chain reaction analysis of mdr1 mRNA in multiple myeloma cell lines and clinical specimens.
AU: Futscher-BW; Blake-LL; Gerlach-JH; Grogan-TM; Dalton-WS
SO: Anal-Biochem. 1993 Sep; 213(2): 414-21
ISSN: 0003-2697
LA: ENGLISH
AN: 94057421

MEDLINE EXPRESS (R) 1992-1996 36 of 53
TI: Rapid detection of trisomy 21 by quantitative PCR.
AU: von-Eggeling-F; Freytag-M; Fahsold-R; Horsthemke-B; Claussen-U
SO: Hum-Genet. 1993 Jul; 91(6): 567-70
ISSN: 0340-6717
LA: ENGLISH
AN: 93339788

MEDLINE EXPRESS (R) 1992-1996 37 of 53
TI: Quantitation of IL-4 expression in small numbers of cells from mice.
AU: Barthelson-RA
SO: J-Immunol-Methods. 1993 May 5; 161(1): 67-76
ISSN: 0022-1759
LA: ENGLISH
AN: 93253271

MEDLINE EXPRESS (R) 1992-1996 38 of 53
TI: Ontogeny of aromatase messenger ribonucleic acid in mouse brain: fluorometrical quantitation by polymerase chain reaction.
AU: Harada-N; Yamada-K
SO: Endocrinology. 1992 Nov; 131(5): 2306-12
ISSN: 0013-7227
LA: ENGLISH
AN: 93048971

MEDLINE EXPRESS (R) 1992-1996 39 of 53
TI: Rapid quantitation by PCR of endomycorrhizal fungi colonizing roots.
AU: Simon-L; Levesque-RC; Lalonde-M

SO: PCR-Methods-Appl. 1992 Aug; 2(1): 76-80
ISSN: 1054-9803
LA: ENGLISH
AN: 93145057

MEDLINE EXPRESS (R) 1992-1996 40 of 53
TI: Quantitation of human cellular retinoic acid-binding protein II (CRABP-II) RNA from cultured human skin fibroblast cells and human skin biopsies treated with retinoic acid.
AU: Zhou-L; Otulakowski-G; Pang-J; Munroe-DG; Capetola-RJ; Lau-C
SO: Nucleic-Acids-Res. 1992 Dec 11; 20(23): 6215-20
ISSN: 0305-1048
LA: ENGLISH
AN: 93117092

MEDLINE EXPRESS (R) 1992-1996 41 of 53
TI: Quantitation of hypothalamic atrial natriuretic peptide messenger RNA in hypertensive rats.
AU: Chen-YF; Elton-TS; Oparil-S
SO: Hypertension. 1992 Mar; 19(3): 296-300
ISSN: 0194-911X
LA: ENGLISH
AN: 92192761

MEDLINE EXPRESS (R) 1992-1996 42 of 53
TI: Xenopus laevis oocyte G alpha subunits mRNAs. Detection and quantitation during oogenesis and early embryogenesis by competitive reverse PCR.
AU: Onate-A; Herrera-L; Antonelli-M; Birnbaumer-L; Olate-J
SO: FEBS-Lett. 1992 Nov 30; 313(3): 213-9
ISSN: 0014-5793
LA: ENGLISH
AN: 93076898

MEDLINE EXPRESS (R) 1992-1996 43 of 53
TI: Competitive polymerase chain reaction using an internal standard: application to the quantitation of viral DNA.
AU: Telenti-A; Imboden-P; Germann-D
SO: J-Virol-Methods. 1992 Sep; 39(3): 259-68
ISSN: 0166-0934
LA: ENGLISH
AN: 93055232

MEDLINE EXPRESS (R) 1992-1996 44 of 53
TI: A PCR method for the quantitative assessment of mRNA for laminin A, B1, and B2 chains.
AU: Horikoshi-S; Fukuda-K; Ray-PE; Sawada-M; Bruggeman-LA; Klotman-PE
SO: Kidney-Int. 1992 Sep; 42(3): 764-9
ISSN: 0085-2538
LA: ENGLISH
AN: 93022373

MEDLINE EXPRESS (R) 1992-1996 45 of 53
TI: Standardization of mRNA titration using a polymerase chain reaction method involving co-amplification with a multispecific internal control.
AU: Bouaboula-M; Legoux-P; Pessegue-B; Delpech-B; Dumont-X; Piechaczyk-M; Casellas-P; Shire-D
SO: J-Biol-Chem. 1992 Oct 25; 267(30): 21830-8
ISSN: 0021-9258
LA: ENGLISH
AN: 93016142

MEDLINE EXPRESS (R) 1992-1996 46 of 53
TI: Use of quantitative polymerase chain reaction to quantitate cytokine messenger RNA molecules.
AU: Kanangat-S; Solomon-A; Rouse-BT
SO: Mol-Immunol. 1992 Oct; 29(10): 1229-36
ISSN: 0161-5890
LA: ENGLISH
AN: 92408671

MEDLINE EXPRESS (R) 1992-1996 47 of 53
TI: A simplified method for determination of specific DNA or RNA copy number using quantitative PCR and an automatic DNA sequencer.
AU: Porcher-C; Malinge-MC; Picat-C; Grandchamp-B
SO: Biotechniques. 1992 Jul; 13(1): 106-14
ISSN: 0736-6205
LA: ENGLISH
AN: 92368628

MEDLINE EXPRESS (R) 1992-1996 48 of 53
TI: [Quantification of mRNA using the polymerase chain reaction--cytokines in rheumatoid arthritis]
AU: Herzog-C
SO: Schweiz-Med-Wochenschr. 1992 Feb 15; 122(7): 229-32
ISSN: 0036-7672
LA: GERMAN; NON-ENGLISH
AN: 92169450

MEDLINE EXPRESS (R) 1991 49 of 53
TI: Quantitation of mRNA by the kinetic polymerase chain reaction assay: a tool for monitoring P-glycoprotein gene expression.
AU: Hoof-T; Riordan-JR; Tummler-B
SO: Anal-Biochem. 1991 Jul; 196(1): 161-9
ISSN: 0003-2697
LA: ENGLISH
AN: 91362229

MEDLINE EXPRESS (R) 1991 50 of 53
TI: Quantitation of high energy phosphate compounds and metabolic significance in the developing dog brain.
AU: Nioka-S; Chance-B; Lockard-SB; Dobson-GP
SO: Neurol-Res. 1991 Mar; 13(1): 33-8
ISSN: 0161-6412
LA: ENGLISH
AN: 91261070

MEDLINE EXPRESS (R) 1991 51 of 53
TI: Competitive polymerase chain reaction assay for quantitation of HIV-1 DNA and RNA.
AU: Stieger-M; Demolliere-C; Ahlborn-Laake-L; Mous-J
SO: J-Virol-Methods. 1991 Sep-Oct; 34(2): 149-60
ISSN: 0166-0934
LA: ENGLISH
AN: 92210669

MEDLINE EXPRESS (R) 1991 52 of 53
TI: Quantitation of human erythroid-specific porphobilinogen deaminase mRNA by the polymerase chain reaction.
AU: Lin-JH; Grandchamp-B; Abraham-NG
SO: Exp-Hematol. 1991 Sep; 19(8): 817-22

ISSN: 0301-472X
LA: ENGLISH
AN: 91331032

MEDLINE EXPRESS (R) 1983-1989 53 of 53

TI: Quantitation of mRNA by the polymerase chain reaction [published erratum appears in Proc Natl Acad Sci U S A 1990 Apr;87(7):2865]
AU: Wang-AM; Doyle-MV; Mark-DF
SO: Proc-Natl-Acad-Sci-U-S-A. 1989 Dec; 86(24): 9717-21
ISSN: 0027-8424
LA: ENGLISH
AN: 90099335

1. 5,667,974, Sep. 16, 1997, Method for detecting nucleic acid sequences using competitive amplification; Larry Birkenmeyer, et al., 435/6, 91.2; 536/24.3 :IMAGE AVAILABLE:

2. 5,661,040, Aug. 26, 1997, Fluorescent polymer labeled conjugates and intermediates; Jeffrey B. Huff, et al., 436/531; 435/6, 7.21, 7.24, 960; 436/532, 547; 530/391.3 :IMAGE AVAILABLE:

3. 5,645,801, Jul. 8, 1997, Device and method for amplifying and detecting target nucleic acids; Stanley R. Bouma, et al., 422/68.1, 50, 52, 55, 57, 58, 61, 63, 69; 435/6, 91.1, 91.2, 283.1, 287.1, 287.2, 287.3, 288.1, 288.2, 288.7, 289.1, 290.1, 290.4, 293.1, 304.1, 810; 536/23.1, 24.1, 24.3, 24.31, 24.32, 24.33; 935/77, 78, 88 :IMAGE AVAILABLE:

4. 5,643,751, Jul. 1, 1997, Borrelia burgdorferi antigens and uses thereof; John M. Robinson, et al., 435/69.1, 69.3, 69.7, 172.3, 320.1; 935/22, 38 :IMAGE AVAILABLE:

5. 5,643,733, Jul. 1, 1997, Borrelia burgdorferi antigens and uses thereof; John M. Robinson, et al., 435/7.1, 7.2, 7.3, 7.32; 436/518 :IMAGE AVAILABLE:

=> s l8 and (ligase (2w) (chain or detection))
4090 LIGASE
282211 CHAIN
214388 DETECTION
252 LIGASE (2W) (CHAIN OR DETECTION)
L10 21 L8 AND (LIGASE (2W) (CHAIN OR DETECTION))

=> d 1-5
COMMAND INTERRUPTED

=> d 1-5

1. 5,667,974, Sep. 16, 1997, Method for detecting nucleic acid sequences using competitive amplification; Larry Birkenmeyer, et al., 435/6, 91.2; 536/24.3 :IMAGE AVAILABLE:

2. 5,661,040, Aug. 26, 1997, Fluorescent polymer labeled conjugates and intermediates; Jeffrey B. Huff, et al., 436/531; 435/6, 7.21, 7.24, 960; 436/532, 547; 530/391.3 :IMAGE AVAILABLE:

3. 5,645,801, Jul. 8, 1997, Device and method for amplifying and detecting target nucleic acids; Stanley R. Bouma, et al., 422/68.1, 50, 52, 55, 57, 58, 61, 63, 69; 435/6, 91.1, 91.2, 283.1, 287.1, 287.2, 287.3, 288.1, 288.2, 288.7, 289.1, 290.1, 290.4, 293.1, 304.1, 810; 536/23.1, 24.1, 24.3, 24.31, 24.32, 24.33; 935/77, 78, 88 :IMAGE AVAILABLE:

4. 5,631,130, May 20, 1997, Materials and methods for the detection of Mycobacterium tuberculosis; Gregor W. Leckie, et al., 435/6, 91.2, 91.5, 91.52; 536/23.7, 24.32, 24.33; 935/8, 17, 77, 78 :IMAGE AVAILABLE:

5. 5,607,625, Mar. 4, 1997, Chemiluminescent electron-rich aryl-substituted 1,2-dioxetanes; Nai-Yi Wang, et al., 252/700; 422/52; 435/4, 5, 6 :IMAGE AVAILABLE:

=> s l8 and OLA
92 OLA

MEDLINE EXPRESS (R) 1992-1996 1 of 3
Marked in Search: #15

TI: Quantitative polymerase chain reaction for hepatitis B virus DNA.
AU: Wu-J; Sullivan-DE; Gerber-MA
SO: J-Virol-Methods. 1994 Oct; 49(3): 331-41
ISSN: 0166-0934
LA: ENGLISH
AN: 95173154

MEDLINE EXPRESS (R) 1992-1996 2 of 3
Marked in Search: #18

TI: Polymerase chain reaction kinetics when using a positive internal control target to quantitatively detect cytomegalovirus target sequences.
AU: Chan-A; Zhao-J; Krajden-M
SO: J-Virol-Methods. 1994 Jul; 48(2-3): 223-36
ISSN: 0166-0934
LA: ENGLISH
AN: 95081241

MEDLINE EXPRESS (R) 1992-1996 3 of 3
Marked in Search: #18

TI: Rapid and simple PCR assay for quantitation of human immunodeficiency virus type 1 RNA in plasma: application to acute retroviral infection.
AU: Mulder-J; McKinney-N; Christopherson-C; Sninsky-J; Greenfield-L; Kwok-S
SO: J-Clin-Microbiol. 1994 Feb; 32(2): 292-300
ISSN: 0095-1137
LA: ENGLISH
AN: 94201349

QR 46

#1 (Polymerase Chain Reaction or PCR) & Quantitation > 50,000

#2 #1 & Standard 282

#3 #2 & Internal 37 hits

US PAT NO: 5,525,717 :IMAGE AVAILABLE: L17: 1 of 2

ABSTRACT:
A nucleotide sequence characteristic of Neisseria gonorrhoeae is disclosed. The sequence can be the basis for hybridization type, nucleic acid-based, rapid, in vitro diagnostic assays. The unique nature of the sequence makes it possible to clearly discriminate N. gonorrhoeae from other Neisseria species thus eliminating or substantially reducing the number of false positive readings. A 350 base pair N. gonorrhoeae DNA restriction fragment was cloned after subtractive hybridization to Neisseria meningitidis DNA. In further cloning experiments the sequences adjacent to the original 350 base pair fragment were determined. A portion of this sequence was shown to detect 105 of 106 N. gonorrhoeae strains and no other Neisseria species. In addition to use as detection probes, all or portions of the nucleotide sequence can be used as a ligand for the sandwich capture of N. gonorrhoeae sequences and as primers for in vitro amplification of N. gonorrhoeae sequences. The polypeptides encoded by the presently disclosed sequence, including antibodies thereto, are also disclosed as are their uses.

2. 5,256,536, Oct. 26, 1993, Nucleotide probe for Neisseria gonrrhoeae; Charles G. Miyada, et al., 435/6, 177, 822, 871; 536/24.32 :IMAGE AVAILABLE:

US PAT NO: 5,256,536 :IMAGE AVAILABLE: L17: 2 of 2

ABSTRACT:
A nucleotide sequence characteristic of Neisseria gonorrhoeae is disclosed. The sequence can be the basis for hybridization type, nucleic acid-based, rapid, in vitro diagnostic assays. The unique nature of the sequence makes it possible to clearly discriminate N. gonorrhoeae from other Neisseria species thus eliminating or substantially reducing the number of false positive readings. A 350 base pair N. gonorrhoeae DNA restriction fragment was cloned after subtractive hybridization to Neisseria meningitidis DNA. In further cloning experiments the sequences adjacent to the original 350 base pair fragment were determined. A portion of this sequence was shown to detect 105 of 106 N. gonorrhoeae strains and no other Neisseria species. In addition to use as detection probes, all or portions of the nucleotide sequence can be used as a ligand for the sandwich capture of N. gonorrhoeae sequences and as primers for in vitro amplification of N. gonorrhoeae sequences. The polypeptides encoded by the presently disclosed sequence, including antibodies thereto, are also disclosed as are their uses.

=> d 1,2 kwic

US PAT NO: 5,525,717 :IMAGE AVAILABLE: L17: 1 of 2

DETDESC:

DETD(30)

In . . . to the use in the method of the present invention. Either the target sequence or the polynucleotide probe can be **immobilized**. Numerous methods are known for binding **nucleotide** sequences to solid supports. For example see Goldkorn et al., Nucleic Acids Research (1986) 14:9171-9191 and the references contained therein. Frequently, the procedures for attaching a **nucleotide** sequence to a support involve chemical modifications of some of the **nucleotides** in the sequence whereby the sequence can then be attached to the support. Preferably, the bond between the support and the **nucleotide** sequence will be covalent, more preferably involving a linking group between the **nucleotide** sequence the support. For example, the support can be treated to introduce maleimide groups and the **nucleotide** sequence can be treated to introduce a thiol group. The thiol group is reactive with the activated **olefin** of the maleimide group and in such a fashion the **nucleotide** sequence can be covalently bound to the support. Examples of other such linking groups are cellulose derivatized with diazobenzyloxymethyl groups. . .

US PAT NO: 5,256,536 :IMAGE AVAILABLE: L17: 2 of 2

DETDESC:

DETD(30)

TI: Non-radioactive detection of Mycobacterium tuberculosis LCR products in a microtitre plate format.
AU: Winn-Deen-ES; Batt-CA; Wiedmann-M
SO: Mol-Cell-Probes. 1993 Jun; 7(3): 179-86
ISSN: 0890-8508
LA: ENGLISH
AB: As part of the development of the ligase chain reaction (LCR) into a tool which can be used by a wide variety of researchers, we have investigated several analytical detection systems for the products of this amplification reaction. While early work with this technology has used gel electrophoresis to separate the LCR probes from the ligated product, solid phase capture techniques are also applicable, particularly when one of the probes is modified with a 'hook' such as biotin, and the adjoining probe modified with a detectable label. In this study we report a comparison of eight different non-radioactive detection techniques and discuss the analytical sensitivity of each. Detection with laser scanning fluorescent gel electrophoresis remains the most sensitive, with the assay described herein capable of detecting 100 molecules of the Mycobacterium tuberculosis insertion element IS6110 in a background of 4 micrograms of unrelated DNA. This method was followed closely by solid-phase capture and chemiluminescence detection which gave a sensitivity of 1000 molecules of IS6110. Fluorescence detection was approximately 10-fold less sensitive than chemiluminescence detection, and absorbance detection was a further 10-fold less sensitive than fluorescence detection. However, absorbance detection even at this level can still be useful for systems where visual interpretation is desired.
AN: 93375984

TI: Ligation amplification and fluorescence detection of Mycobacterium tuberculosis DNA.
AU: Iovannisci-DM; Winn-Deen-ES
SO: Mol-Cell-Probes. 1993 Feb; 7(1): 35-43
ISSN: 0890-8508
LA: ENGLISH
AB: Current methods for the identification of Mycobacterium tuberculosis are dependent upon culture of the bacteria and are necessarily lengthy due to the slow growth of this agent. The development of DNA probe technology offers rapid, accurate and cost effective alternatives for the identification of such fastidious organisms. A technique for detecting specific DNA sequences, known as oligonucleotide ligation assay (OLA) involves the ligation of two adjacent oligonucleotides annealed to target DNA, and has been previously described. Amplification of the target sequences can be accomplished by including complementary pairs of oligonucleotides and a thermal stable ligase in a reaction which cycles between annealing/ligation and denaturing temperatures. Using a cloned portion of an insertion sequence, IS6110, which has been reported to be specific for M. tuberculosis complex as target DNA, we demonstrate the ligation dependent amplification of a 40 base pair region of plasmid bearing IS6110. By employing oligonucleotides which are each labelled with a different fluorescent dye, the reaction can be followed by fluorescence detection on an Applied Biosystems model 373A DNA sequencer. Using this approach, we have optimized conditions for the detection of 100 target molecules in a mixture containing 4 micrograms of unrelated DNA. Since the insertion sequence is repeated on average 12-14 times in the genome of M. tuberculosis, this corresponds to a theoretical detection level of 7-8 organisms. Completion of this entire assay can be accomplished in less than 8 h and serves as a basis for further studies in the development of a rapid clinical diagnostic test for tuberculosis.
AN: 93205022

MEDLINE EXPRESS (R) 1992-1996 1 of 3
Marked in Search: #3

TI: Fluorescence-based oligonucleotide ligation assay for analysis of cystic fibrosis transmembrane conductance regulator gene mutations.
AU: Eggerding-FA; Iovannisci-DM; Brinson-E; Grossman-P; Winn-Deen-ES
SO: Hum-Mutat. 1995; 5(2): 153-65
ISSN: 1059-7794
LA: ENGLISH
AN: 95268425

MEDLINE EXPRESS (R) 1992-1996 2 of 3
Marked in Search: #9

TI: Ligation amplification and fluorescence detection of Mycobacterium tuberculosis DNA.
AU: Iovannisci-DM; Winn-Deen-ES
SO: Mol-Cell-Probes. 1993 Feb; 7(1): 35-43
ISSN: 0890-8508
LA: ENGLISH
AN: 93205022

MEDLINE EXPRESS (R) 1992-1996 3 of 3
Marked in Search: #9

TI: Non-radioactive detection of Mycobacterium tuberculosis LCR products in a microtitre plate format.
AU: Winn-Deen-ES; Batt-CA; Wiedmann-M
SO: Mol-Cell-Probes. 1993 Jun; 7(3): 179-86
ISSN: 0890-8508
LA: ENGLISH
AN: 93375984

Marked in Search: #12

TI: High-density multiplex detection of nucleic acid sequences: oligonucleotide ligation assay and sequence-coded separation.
AU: Grossman-PD; Bloch-W; Brinson-E; Chang-CC; Eggerding-FA; Fung-S; Iovannisci-DA; Woo-S; Winn-Deen-ES
SO: Nucleic-Acids-Res. 1994 Oct 25; 22(21): 4527-34 QP(20N8
ISSN: 0305-1048
LA: ENGLISH
AB: We describe a non-isotopic, semi-automated method for large-scale multiplex analysis of nucleic acid sequences, using the cystic fibrosis transmembrane regulator (CFTR) gene as an example. Products of a multiplex oligonucleotide ligation assay (OLA) are resolved electrophoretically from one another and from unligated probes under denaturing conditions with fluorescence detection. One ligation probe for each OLA target carries a fluorescent tag, while the other probe carries an oligomeric non-nucleotide mobility modifier. Each OLA product has a unique electrophoretic mobility determined by the ligated oligonucleotides and the mobility-modifier oligomer arbitrarily assigned (coded) to its target. The mobility range for practical mobility modifiers is much wider than the accessible range from unmodified ligated oligonucleotides of practical length. Each mobility modifier is built from phosphoramidite monomers in a stepwise manner on its associated oligonucleotide using an automated synthesizer. The resulting mobility modifiers lower the probe-target duplex Tm by less than 3 degrees C and retard probe-target annealing by less than 50%, with negligible effect on OLA yield and specificity. This method is especially useful for allelic discrimination in highly polymorphic genes such as CFTR.
AN: 95061417

Marked in Search: #12

TI: Sequencing reactions for the applied biosystems 373A Automated DNA Sequencer.
AU: Halloran-N; Du-Z; Wilson-RK
SO: Methods-Mol-Biol. 1993; 23: 297-315
ISSN: 1064-3745
LA: ENGLISH
AN: 94035666

TI: Diagnosis of Chlamydia trachomatis genitourinary infection in women by ligase chain reaction assay of urine [see comments]
AU: Lee-HH; Chernesky-MA; Schachter-J; Burczak-JD; Andrews-WW; Muldoon-S; Leckie-G; Stamm-WE
SO: Lancet. 1995 Jan 28; 345(8944): 213-6
ISSN: 0140-6736
LA: ENGLISH
AB: Genitourinary infection with Chlamydia trachomatis is a common and potentially serious sexually transmitted disease. Diagnosis of C trachomatis infection in women typically relies on culture of endocervical swabs, an invasive and expensive procedure. The ligase chain reaction (LCR) is an in-vitro nucleic acid amplification technique that exponentially amplifies selected DNA sequences. We have compared an LCR-based assay to detect C trachomatis plasmid DNA in first void urine with culture of endocervical swabs for matched specimens from 1937 women from four geographic regions. Discordant specimen pairs were further tested by direct fluorescent antibody staining for elementary bodies and an alternative LCR assay based on the chlamydial outer membrane protein gene. An "expanded gold standard" was defined to include all culture-positive as well as culture-negative, confirmed LCR-positive women. The sensitivity and specificity of the LCR assay with first void urine samples compared with the expanded gold standard were 93.8% and 99.9%, respectively; the corresponding values for culture were 65.0% and 100%, respectively. Thus, an automated LCR assay of readily obtained urine samples showed a detection rate for infected women almost 30% greater than that of endocervical swab culture. The LCR assay was highly effective for the detection of C trachomatis in urine from women with or without signs or symptoms of chlamydial genitourinary tract infection.
AN: 95124069

TI: Diagnosis of Chlamydia trachomatis urethral infection in symptomatic and asymptomatic men by testing first-void urine in a ligase chain reaction assay.
AU: Chernesky-MA; Lee-H; Schachter-J; Burczak-JD; Stamm-WE; McCormack-WM; Quinn-TC
SO: J-Infect-Dis. 1994 Nov; 170(5): 1308-11
ISSN: 0022-1899
LA: ENGLISH
AB: A multicenter study compared ligase chain reaction (LCR) of Chlamydia trachomatis plasmid DNA with culture of urethral swab specimens from 542 men (study A); a second study (B) compared LCR of first-void urine (FVU) with urethral swab cultures from 1043 men. Discordant results were resolved with direct fluorescent antibody staining of sediments from the FVU or urethral culture specimen and with a second LCR directed against a fragment of the major outer membrane protein gene. Test performance was calculated on the basis of an expanded reference standard. The LCR plasmid assay had a sensitivity of 98.0% in study A and 93.5% in study B; specificity was 99.8%-100%. The sensitivity of culturing urethral swabs from all study sites was 68.2% (range by sites, 40.0%-84.6%). The presence or absence of urethral symptoms did not alter the results. Use of this LCR test should allow more meaningful investigation and treatment of C. trachomatis infections in men.
AN: 95052859

L11 0 L8 AND OLA

=> oligonucleo? (2w) ligation# (2W) assay#
'OLIGONUCLEO?' IS NOT A RECOGNIZED COMMAND

=> s oligonucleo? (2w) ligation# (2W) assay#
7980 OLIGONUCLEO?
6391 LIGATION#
44833 ASSAY#
L12 27 OLIGONUCLEO? (2W) LIGATION# (2W) ASSAY#

=> d 1-5

1. 5,679,647, Oct. 21, 1997, Methods and devices for immunizing a host against tumor-associated antigens through administration of naked polynucleotides which encode tumor-associated antigenic peptides; Dennis A. Carson, et al., 514/44; 424/184.1; 536/23.1 :IMAGE AVAILABLE:

2. 5,679,524, Oct. 21, 1997, Ligase/polymerase mediated genetic bit analysis of single nucleotide polymorphisms and its use in genetic analysis; Theo Nikiforov, et al., 435/6, 5, 91.1, 91.2, 810; 436/501; 536/24.1, 24.3, 24.31, 24.32, 24.33; 935/77, 78 :IMAGE AVAILABLE:

3. 5,670,330, Sep. 23, 1997, Anti-tumor agent assay using PKR; Nahum Sonenberg, et al., 435/15, 4, 6 :IMAGE AVAILABLE:

4. 5,654,155, Aug. 5, 1997, Consensus sequence of the human BRCA1 gene; Patricia D. Murphy, et al., 435/6, 91.2; 536/23.1, 24.3, 24.33 :IMAGE AVAILABLE:

5. 5,635,617, Jun. 3, 1997, Methods and compositions comprising the agfA gene for detection of Salmonella; James L. Doran, et al., 536/23.7, 23.1 :IMAGE AVAILABLE:

=> d 6-27

6. 5,624,800, Apr. 29, 1997, Method of DNA sequencing employing a mixed DNA-polymer chain probe; Paul D. Grossman, et al., 435/6, 91.1 :IMAGE AVAILABLE:

7. 5,618,671, Apr. 8, 1997, Method and system for molecular-biological diagnostics; Per Lindstr om, 435/6, 91.1, 91.2, 285.1, 287.2; 436/501 :IMAGE AVAILABLE:

8. 5,610,287, Mar. 11, 1997, Method for immobilizing nucleic acid molecules; Theo Nikiforov, et al., 536/24.3; 435/6, 172.3, 180; 536/24.31, 24.32, 24.33, 25.3 :IMAGE AVAILABLE:

9. 5,593,826, Jan. 14, 1997, Enzymatic ligation of 3'amino-substituted oligonucleotides; Steven Fung, et al., 435/6; 536/24.3 :IMAGE AVAILABLE:

10. 5,580,732, Dec. 3, 1996, Method of DNA sequencing employing a mixed DNA-polymer chain probe; Paul D. Grossman, et al., 435/6, 91.1; 536/24.33 :IMAGE AVAILABLE:

11. 5,571,676, Nov. 5, 1996, Method for mismatch-directed in vitro DNA sequencing; Anthony P. Shuber, 435/6, 5, 91.2; 536/24.3, 24.31, 24.33 :IMAGE AVAILABLE:

12. 5,561,041, Oct. 1, 1996, Nucleic acid mutation detection by analysis

of sputum; David Sidransky, 435/6, 91.2; 935/77, 78 :IMAGE AVAILABLE:

13. 5,534,406, Jul. 9, 1996, Method of detecting antigenic nucleic acid-containing macromolecular entities; Tsanyang Liang, et al., 435/5, 6, 7.1, 7.2; 436/519, 541; 530/413 :IMAGE AVAILABLE:

14. 5,516,635, May 14, 1996, Binding assay employing labelled reagent; Roger P. Ekins, et al., 435/6, 5, 7.1; 536/24.3 :IMAGE AVAILABLE:

15. 5,514,543, May 7, 1996, Method and probe composition for detecting multiple sequences in a single assay; Paul D. Grossman, et al., 435/6, 91.2, 91.52; 436/94 :IMAGE AVAILABLE:

16. 5,500,356, Mar. 19, 1996, Method of nucleic acid sequence selection; Wu-Bo Li, et al., 435/91.1, 91.2, 172.3; 536/24.3, 24.33 :IMAGE AVAILABLE:

17. 5,494,810, Feb. 27, 1996, Thermostable ligase-mediated DNA amplifications system for the detection of genetic disease; Francis Barany, et al., 435/91.52, 4, 6, 91.2 :IMAGE AVAILABLE:

18. 5,470,705, Nov. 28, 1995, Probe composition containing a binding domain and polymer chain and methods of use; Paul D. Grossman, et al., 435/6; 204/451; 435/91.2; 536/24.3 :IMAGE AVAILABLE:

19. 5,462,854, Oct. 31, 1995, Inverse linkage oligonucleotides for chemical and enzymatic processes; Peter J. Coassin, et al., 435/6, 91.2; 536/23.1 :IMAGE AVAILABLE:

20. 5,449,604, Sep. 12, 1995, Chromosome 14 and familial Alzheimers disease genetic markers and assays; Gerard D. Schellenberg, et al., 435/6, 91.2 :IMAGE AVAILABLE:

21. 5,427,911, Jun. 27, 1995, Coupled amplification and sequencing of DNA; Gualberto Ruano, 435/6, 91.2; 536/24.33 :IMAGE AVAILABLE:

22. 5,403,708, Apr. 4, 1995, Methods and compositions for determining the sequence of nucleic acids; Thomas M. Brennan, et al., 435/6, 91.52; 436/94; 536/24.33, 25.32 :IMAGE AVAILABLE:

23. 5,266,459, Nov. 30, 1993, Gaucher's disease: detection of a new mutation in intron 2 of the glucocerebrosidase gene; Ernest Beutler, 435/6, 91.2; 536/23.1; 935/77, 78 :IMAGE AVAILABLE:

24. 5,234,811, Aug. 10, 1993, Assay for a new gaucher disease mutation; Ernest Beutler, et al., 435/6, 91.2; 536/23.1; 935/77, 78 :IMAGE AVAILABLE:

25. 5,106,727, Apr. 21, 1992, Amplification of nucleic acid sequences using oligonucleotides of random sequences as primers; James L. Hartley, et al., 435/6, 5, 91.2, 91.21, 810; 436/94, 501; 935/77, 78 :IMAGE AVAILABLE:

26. 5,077,192, Dec. 31, 1991, Method of detecting antigenic, nucleic acid-containing macromolecular entities; Tsanyang Liang, et al., 435/5, 6, 7.1, 7.2 :IMAGE AVAILABLE:

27. 5,043,272, Aug. 27, 1991, Amplification of nucleic acid sequences using oligonucleotides of random sequence as primers; James L. Hartley, 435/5, 6, 91.2, 810; 436/94, 501; 935/77, 78 :IMAGE AVAILABLE:

5/6/32 (Item 22 from file: 654)
02069667
LACTAM-CONTAINING COMPOSITIONS AND METHODS USEFUL FOR THE HYBRIDIZATION OF NUCLEIC ACIDS
[Using a solution of a monomeric lactam and a detergent to target a nucleic acid and a nucleic acid complementary to it]
FULL TEXT: 1008 lines
?
PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES
? T S5/7/1,2,4,8

5/7/1 (Item 1 from file: 16)
DIALOG(R)File 16:IAC PROMT(R)

05909103
ChemCore
Is aiming to develop a distributed diagnostic testing system, based on microchip technology
In Vivo the Business & Medicine Report Dec, 1995 p. 30
ISSN: 0258-851X

Business: Microchip-based diagnostics
Contact: Paul K. Horan, PhD, CEO
Address: 20 Valley Stream Pkwy., Ste. 265, Malvern, PA 19355
Phone: (610) 695-2078
Founded: January 1994

Many diagnostic startups in recent years have focused on developing point-of-care testing systems, believing the convenience, speed of results, and reduction of costs offered by these systems will be preferred by physicians and payers alike. The microchip-based test has become a popular niche among diagnostic startups. ChemCore Inc. is one of the many companies aiming to successfully develop a point-of-care testing system, or as ChemCore calls it, a distributed diagnostic testing (dDT) system, based on microchip technology.

The company's technology utilizes a microfabricated silicon chip about the size of a dime, integrating sample preparation, chemical or immunochemical reactions, and quantitative detection and analysis of results within the same system. The microchips contain etched microchannels, which allow the flow of body fluids, cells, and reagents or nutrients. The dDT instrument in development will be a portable, approximately notebook-size system, which can be connected to hospital laboratory management systems. According to ChemCore, the instrument can rapidly heat or cool patient samples to specified temperatures, while fluids are filtered or dialyzed through molecular sieves (which can select specific molecules) and particle sieves (which separate particles larger than molecules, such as red cells from white cells) etched in the chip. It can also analyze cell or plasma analytes and measure results using photometric, fluorometric, luminometric, or electrochemical techniques, depending on the test being performed.

The company is developing a platform to utilize immunochemistry and nucleic acid amplification technologies in the point-of-care setting. ChemCore will initially target the diabetes, cardiovascular, and metabolic testing markets with its dDT system; it expects to launch the first dDT product in the US in 1998. The company is developing three different chips for different applications within the dDT system: the PCRChip for nucleotide amplification, the ImmunoChip for immunodiagnostics, and the DiabetesChip for the measurement of glucose and hemoglobin A1c in the diabetes clinic.

The company's technology will also be incorporated in future versions of Perkin-Elmer's 9600 in situ probe analysis system for molecular diagnostics and is suited to PCR and LCR (%ligase% %chain% reaction) amplification technologies; ChemCore expects this system to be available to the research market in 1997. The company believes moving the DNA amplification process to a %chip% will prevent cross-contamination because the steps (breaking open cells to release DNA and cycling of amplification before detection) are segregated and the DNA is confined to the inside of the %chip%.

ChemCore intends to out-license its technology for infectious diseases, cancer, and immunodiagnostic testing. The company recently received its fourth patent regarding the use of microchips in nucleic acid amplification. Its proprietary technology was developed at the University of Pennsylvania.

ChemCore is in the process of finalizing its first round of venture funding since its seed round 18 months ago in which it raised $1.5 million from Aspen Venture Partners, CIP Capital, and Perkin-Elmer. CEO Paul Horan founded Zynaxis Inc.--EW

WORD COUNT: 498

5/7/2 (Item 2 from file: 16)
DIALOG(R)File 16:IAC PROMT(R)

05438816
Let the Microchip Fall Where Diagnostics Lies: What Is a Microchip? Why Would Anybody Want One?
Genesis Report-Dx November 1994 p. N/A
ISSN: 1061-2289

Microchip technology -the heart and soul of the semiconductor industry for decades -may be about to enter the diagnostics industry. Several companies are attempting to apply this technology to diagnostics by developing a silicon microchip that could theoretically contain hundreds of thousands of DNA fragments. If these chips are successfully developed, each one could perform hundreds, if not thousands, of diagnostic tests from a small sample of blood. The first microchips could reach the diagnostics market within 2 to 5 years, and -assuming success in product development and in surmounting regulatory hurdles -the technology could be in widespread use before 2005.

In their current state of development, microchips are silicon chips with microchannels etched in by micromachining using photolithography. Analytical and preparative procedures are performed inside these micron-sized channels and chambers. The chambers and channels contain minuscule volumes of reagent, far less than the amount of costly reagents needed for many current diagnostic tests. For example, ChemCore Corp (Malvern, PA), one of the companies researching microchip technology, has developed 17 x 15 mm rectangular silicon chips with microchambers that can hold anywhere between 2.5 and 100 (micro)L of reagents. The depths to which the microchambers can be etched into the chips will vary with their functions and could go to depths below 300 microns. The chips would be contained in a miniature, hand -held fluid reaction device or inserted into a computer, both of which might be capable of providing results within minutes.

Some of the potential problems with %microchip% technology that confronted initial research have already been resolved. Fluidlcs issues, such as flow and mixing, can be handled by varying the patterns and widths

of channels. Similarly, cell selection and cell isolation by size in samples has been made feasible by the addition of restrictions or filters to the channels through which the cell mixture is forced to flow. This feature is particularly useful for separating DNA-containing material, such as separating white cells from lysed red cells in a blood sample, before the DNA amplification steps of polymerase chain reaction (PCR) or %ligase% %chain% reaction (LCR). One other potential application is in immunoassay tests for separating agglutinated from unagglutinated immunobeads.

The biggest impact of microchip technology could be on point-of-care testing, which is the market targeted by the companies developing diagnostic microchips. As envisioned by these companies, microchip technology could offer the following advantages in point-of-care testing:

* Inexpensive testing as a result of the chips using a smaller amount of reagent than many other diagnostic procedures and being less labor-intensive. Current estimates are that the cost of a microchip test for performing one genetic test would be between $10 and $15 once the technology reaches the stage of high-volume production. Currently, the cost for performing a cystic fibrosis test in a laboratory is about $140 to $150.

* Practically real-time results, or, as in other point-of-care tests, results within 10 minutes.

* The capability to perform complex procedures such as PCR in a physician's office, at the patient's bedside, in a medical clinic, or in a small satellite lab in a hospital. In itself, the movement of amplified techniques from the laboratory to the physician's office and other testing sites close to the patient would represent an enormous advance in diagnostic technology.

* The potential to reduce health-care costs and facilitate more-efficient delivery of health-care services because, as with other point-of-care tests, the chips' ability to provide test results faster than laboratory tests allows physicians to begin treatment sooner.

If microchips can deliver on this wish list, they could revolutionize point -of-care testing, if not the whole diagnostics industry. Michael DuCros, chairman of ChemCore, said, "Complex, multistage analytical procedures will be compressed into an easy, 'sample-in, result-out' routine that can be performed instantly, with a hand-held device, at the point-of-patient care or wherever an industrial analysis is needed."

The clinical diagnostic markets for which microchip technology is being developed include infectious diseases, cancer, genetic abnormalities, and forensics. As illustrated in Table 1, ChemCore projects that the market in these areas could have sales of almost $1.5 billion for infectious disease, $231 million for cancer testing, $67 million for genetic testing, and $33 million for forensic testing by 2002, when the company expects the market to be fully developed. In addition to diagnostic testing, the technology could be applied to research or environmental and toxicology tests.

Table 1

Market Potential for DNA on a Microchip

(Estimated Sales $ in Millions)

Diagnostic Application	Year of Market Development	Estimated Market Size
* Infectious diseases	* 2002	* $1.456
* Cancer	* 2002	* $231
* Genetic testing	* 2002	* $67
* Forensic testing	* 2002	* $33
* Fertility test	* 1995	* $14
* In vitro fertilization	* 1995	* $10

Source: ChemCore Corp 1994

WORD COUNT: 777

5/7/4 (Item 1 from file: 315)
DIALOG(R)File 315:ChemEng & Biotec Abs

353154 CEABA Accession No.: 26-02-002757 DOCUMENT TYPE: Patent
Title: Method of multiplex ligase chain reaction.
AUTHOR: Bouma, S. R.; Gordon, J.; Hoijer, J.; Rhoads, J.
CORPORATE SOURCE: Abbott Lab. Abbott Park, IL 60064-3500 USA
CODEN: PIXXD2
PATENT NUMBER: WO 9320227
PUBLICATION DATE: 14 Oct 1993 (931014) LANGUAGE: English
PRIORITY PATENT APPLICATION(S) & DATE(S): US 7/860702 (920331)
ABSTRACT: A multiplex %ligase% %chain% reaction is disclosed. Two or more putative target sequences are selected. For each one,a set of four probes is used simultaneously to amplify the sequence if it is present in the sample. Preferably, all the amplicons are labelled with common label/hapten and for each different target, with a unique label/hapten. An immunochromatographic strip device and a method employing a diagonal %array% of capture spots are also provided.

PCT US 93/01084

5,645,801

5/7/8 (Item 4 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

148701 DBA Accession No.: 93-06753 PATENT
A new gene probe biosensor method and waveguide - DNA or RNA detection or determination, after optional amplification, using immobilized DNA probe or RNA probe and hybridization and measuring fluorescence label
PATENT ASSIGNEE: U.K.Secr.Defence 1993
PATENT NUMBER: WO 9306241 PATENT DATE: 930401 WPI ACCESSION NO.: 93-117558 (9314)
PRIORITY APPLIC. NO.: GB 9119735 APPLIC. DATE: 910916
NATIONAL APPLIC. NO.: WO 92GB1698 APPLIC. DATE: 920916
LANGUAGE: English
ABSTRACT: A new method for detection and/or quantification of target RNA or DNA in tissue, microorganism or cell-free samples comprises: immobilizing a DNA or RNA probe (OP), preferably 15-20 bases long) complementary to all or part of the target on the surface of an evanescent wave detector apparatus (EWDA) waveguide in a temp.-controlled environment; contacting the OP with the sample under hybridizing conditions; adding a fluorescent label (fluorescein) not capable of binding unhybridized immobilized oligonucleotides to the sample or the OP before, during or after hybridization; measuring the label using the EWDA; and relating the amount to the presence, identity and/or amount of target in the sample. Preferably, the target is amplified by the polymerase chain reaction of %ligase% %chain% reaction and the fluorescent label acts as a primer for target amplification. The method uses total internal reflection fluorescence to measure hybridization, giving greater sensitivity and range. Binding of analyte and probe can be regulated by adjusting the conditions and lengths of the probes. The waveguide, an EWDA and an assay kit are also new. (30pp)
? COST

? T S5/3,AB/5,11,13,14,16,19,20,21,24,26

>>>No matching display code(s) found in file(s): 187, 636

5/3,AB/5 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

189881 DBA Accession No.: 96-00652 PATENT
Novel method for amplifying DNA - DNA detection by DNA amplification using a labeled, immobilized DNA primer in a sealed reactor
AUTHOR: Dzieglewska H E
CORPORATE SOURCE: Oslo, Norway.
PATENT ASSIGNEE: Dynal 1995
PATENT NUMBER: WO 9530025 PATENT DATE: 951109 WPI ACCESSION NO.: 95-393095 (9550)
PRIORITY APPLIC. NO.: GB 948607 APPLIC. DATE: 940429
NATIONAL APPLIC. NO.: WO 95GB971 APPLIC. DATE: 950428
LANGUAGE: English
ABSTRACT: A novel method for detection or assay of target DNA in a sample involves introducing the sample into a medium containing one or more amplification enzymes and at least 2 DNA amplification primers such that any target nucleic acid is amplified. At least one of the DNA primers is immobilized or is provided with means of immobilization, and another is labeled or provided with means for labeling. The DNA primers are incorporated into amplified target DNA which is immobilized by reaction with a solid phase. The immobilized labeled DNA primers are then removed from solution in the medium, followed by detection of target DNA in the sample. Also claimed are a reactor containing one or more amplification enzymes, and a labeled DNA primer. Preferably, the amplification method is a %ligase% %chain% reaction. The solid phase is composed of magnetic particles. The method, designated 3SR amplification, has the advantage over the polymerase chain reaction of being isothermal (37-42 deg). The method allows for simple amplification and easy isolation of the amplified fragments. (24pp)

5/3,AB/11 (Item 1 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02475006
Utility
PROBE COMPOSITION CONTAINING A BINDING DOMAIN AND POLYMER CHAIN AND METHODS OF USE

PATENT NO.: 5,470,705
ISSUED: November 28, 1995 (19951128)
INVENTOR(s): Grossman, Paul D., Burlingame, CA (California), US (United States of America)
Fung, Steven, Palo Alto, CA (California), US (United States of America)
Menchen, Steven M., Fremont, CA (California), US (United States of America)
Woo, Sam L., Redwood City, CA (California), US (United States of America)
Winn-Deen, Emily S., Foster City, CA (California), US (United States of America)
ASSIGNEE(s): Applied Biosystems, Inc, (A U.S. Company or Corporation), Foster City, CA (California), US (United States of America)
[Assignee Code(s): 16298]

APPL. NO.: 7-866,018
FILED: April 07, 1992 (19920407)

This is a continuation-in-part of application Ser. No. 07-862,642 filed Apr. 3, 1992, abandoned.

FULL TEXT: 1648 lines

ABSTRACT

Method and composition for detecting one or more selected polynucleotide regions in a target polynucleotide. In the method, a mixture of sequence-specific probes are reacted with the target polynucleotide under hybridization conditions, and the hybridized probes are treated to selectively modify those probes which are bound to the target polynucleotide in a base-specific manner. The resulting labeled probes include a polymer chain which imparts to each different-sequence probe, a distinctive ratio of charge/translational frictional drag, and a detectable label. The labeled probes are fractionated by electrophoresis in a non-sieving matrix, and the presence of one or more selected sequences in the target polynucleotide are detected according to the observed electrophoretic migration rates of the labeled probes in a non-sieving medium.

5/3,AB/13 (Item 3 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02455670
Utility
OLIGONUCLEOTIDES AND METHODS FOR THE DETECTION OF NEISSERIA GONORRHOEAE

PATENT NO.: 5,453,355
ISSUED: September 26, 1995 (19950926)
INVENTOR(s): Birkenmeyer, Larry G., Chicago, IL (Illinois), US (United States of America)
Ching, Shanfun, Libertyville, IL (Illinois), US (United States of America)
Ohhashi, Yoshihiro, Gurnee, IL (Illinois), US (United States of America)
Winkler, Janet K., Lindenhurst, IL (Illinois), US (United States of America)
ASSIGNEE(s): Abbott Laboratories, (A U.S. Company or Corporation), Abbott Park, IL (Illinois), US (United States of America)
[Assignee Code(s): 152]
APPL. NO.: 8-116,388
FILED: September 03, 1993 (19930903)

This application is a continuation-in-part of U.S. Ser. No. 07-722,798, filed Jun. 28, 1991 (pending), which is a continuation-in-part of U.S. Ser. No. 07-470,674, filed Jan. 26, 1990 (now abandoned), and which is related to U.S. Ser. No. 07-634,771, filed Jan. 9, 1991 (pending).

FULL TEXT: 817 lines

ABSTRACT

The present invention relates to oligonucleotide probes and primers useful in detecting Neisseria gonorrhoeae e.g. by the polymerase chain reaction. The present invention is also directed to methods for detecting Neisseria gonorrhoeae by the polymerase chain reaction. The probes and primers are specific for the pilin gene.

5/3,AB/14 (Item 4 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02453621
Utility
METHODS AND REAGENTS FOR HLA CLASS I A LOCUS DNA TYPING
[AMPLIFYING A REGION OF THE HLA-A LOCUS BY POLYMERASE CHAIN REACTION USING OLIGONUCLEOTIDE PRIMERS]

PATENT NO.: 5,451,512
ISSUED: September 19, 1995 (19950919)
INVENTOR(s): Apple, Raymond J., San Francisco, CA (California), US (United States of America)
Bugawan, Teodorica L., Castro Valley, CA (California), US (United States of America)
Erlich, Henry A., Oakland, CA (California), US (United States of America)
ASSIGNEE(s): Hoffmann-La Roche Inc, (A U.S. Company or Corporation), Nutley , NJ (New Jersey), US (United States of America)
[Assignee Code(s): 39424]
EXTRA INFO: Assignment transaction [Reassigned], recorded January 27, 1997 (19970127)
APPL. NO.: 8-127,954
FILED: September 28, 1993 (19930928)

This application is continuation-in-part of U.S. Ser. No. 07-788,113, filed Nov. 5, 1991 which is now abandoned.

FULL TEXT: 4362 lines

ABSTRACT

Primers for amplification of specific nucleic acid sequences of the second and third exon of HLA Class I A gene and probes for identifying polymorphic sequences contained in the amplified DNA can be used in processes for typing homozygous or heterozygous samples from a variety of sources and for detecting allelic variants not distinguishable by serological methods. This HLA-A DNA typing system can be used in a forward or reverse dot-blot format that is simple and rapid to perform, produces detectable signals in minutes, and can be used for tissue typing, determining individual identity, and identifying disease susceptible individuals.

5/3,AB/16 (Item 6 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02449522

Utility
DETECTION OF HUMAN PAPILLOMAVIRUS BY THE POLYMERASE CHAIN REACTION
[Amplification of a DNA sequence]

PATENT NO.: 5,447,839
ISSUED: September 05, 1995 (19950905)
INVENTOR(s): Manos, M. Michele, Richmond, CA (California), US (United States of America)
Bauer, Heidi M., Oakland, CA (California), US (United States of America)
Greer, Catherine E., Oakland, CA (California), US (United States of America)
Resnick, Robert M., Richmond, CA (California), US (United States of America)
Ting, Yi, Berkeley, CA (California), US (United States of America)
ASSIGNEE(s): Hoffmann-La Roche Inc, (A U.S. Company or Corporation), Nutley , NJ (New Jersey), US (United States of America)
[Assignee Code(s): 39424]
EXTRA INFO: Assignment transaction [Reassigned], recorded January 27, 1997 (19970127)
APPL. NO.: 8-50,743
FILED: April 20, 1993 (19930420)

This application is a continuation, of application Ser. No. 07-613,142, filed Nov. 14, 1990, now abandoned, which is a continuation-in-part (CIP) of copending PCT-US89-03747 filed Sep. 9, 1989, which issued as U.S. Pat. No. 5,283,171, which is a CIP of U.S. Ser. No. 322,550, filed Mar. 10, 1989, which issued as U.S. Pat. No. 5,182,377, which is a CIP of U.S. Ser. No. 243,486, filed Sep. 9, 1988, now abandoned, each of which is incorporated herein by reference.

FULL TEXT: 4332 lines

ABSTRACT

The presence of human papillomavirus (HPV) in a sample can be detected and the HPV typed by a method that involves the amplification of HPV DNA sequences by the polymerase chain reaction (PCR). The primers used in the method are consensus primers that can be used to amplify a particular region of the genome of any HPV. The presence of HPV in a sample is indicated by the formation of amplified DNA. The HPV nucleic acid is detected by consensus probes that may be short oligonucleotide probes or long genetic probes. The HPV is typed by the use of type-specific DNA probes specific for the amplified region of DNA.

5/3,AB/19 (Item 9 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02427346
Utility
METHOD FOR REDUCING CARRYOVER CONTAMINATION IN AN AMPLIFICATION PROCEDURE
[Enzyme pretreatment]

PATENT NO.: 5,427,929
ISSUED: June 27, 1995 (19950627)

INVENTOR(s): Richards, Rodney M., Louisville, CO (Colorado), US (United States of America)
Jones, Theodore, Lakewood, CO (Colorado), US (United States of America)
Snitman, David L., Boulder, CO (Colorado), US (United States of America)
Brown, Gregory S., Boulder, CO (Colorado), US (United States of America)
ASSIGNEE(s): Amgen Inc, (A U.S. Company or Corporation), Thousand Oaks, CA (California), US (United States of America)
[Assignee Code(s): 12117]
APPL. NO.: 8-57,192
FILED: May 03, 1993 (19930503)
This is a continuation of application Ser. No. 07-686,478 filed on Apr. 19, 1991 which is a continuation-in-part of application Ser. No. 07-517,631 filed on May 1, 1990, now abandoned.

FULL TEXT: 2389 lines

ABSTRACT

The present invention provides an efficient and economical method for reducing carryover contamination in an amplification procedure. The method of the present invention enables background caused by contaminant amplification product to be reduced or eliminated through the incorporation of at least one modification into the amplification product. The modified amplification product is readily distinguishable from the target sequence in a test sample. Prior to amplifying the target in a new test sample, the sample may be treated to selectively cleave the contaminant amplification product so that it cannot be amplified in the new sample.

5/3,AB/20 (Item 10 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02420988
Utility
MYCOBACTERIUM PRIMERS AND PROBES
[Oligonucleotides for amplifying target regions of ribosomal RNA genes, kits for detection and identification of bacterial nucleic acids, diagnosis of infections]

PATENT NO.: 5,422,242
ISSUED: June 06, 1995 (19950606)
INVENTOR(s): Young, Karen K. Y., San Ramon, CA (California), US (United States of America)
ASSIGNEE(s): Hoffmann-La Roche Inc, (A U.S. Company or Corporation), Nutley , NJ (New Jersey), US (United States of America)
[Assignee Code(s): 39424]
EXTRA INFO: Assignment transaction [Reassigned], recorded January 27, 1997 (19970127)
APPL. NO.: 7-915,922
FILED: July 17, 1992 (19920717)

CROSS-REFERENCE

This application is a continuation-in-part of U.S. Ser. No. 07-746,704, filed Aug. 15, 1991, now abandoned.

FULL TEXT: 1693 lines

ABSTRACT

Primers and probes can be used to detect nucleic acid from Mycobacterium in a sample and determine the species from which the nucleic acid originates. The primers amplify regions of the 16S ribosomal RNA gene and hybridize to regions conserved among species. Genus specific probes hybridize to sequences within the amplified region conserved among mycobacterial species, whereas the species specific probes hybridize to a variable region, so that the species identity can be uniquely determined. Consensus probes for detecting mycobacteria nucleic acids are provided which probes are not identical to any of the sequences of mycobacterial species.

5/3,AB/21 (Item 11 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02413923
Utility
APPARATUS AND METHOD FOR AMPLIFYING AND DETECTING TARGET NUCLEIC ACIDS
[Thermocycler; amplifying DNA and RNA; medical diagnosis]

PATENT NO.: 5,415,839
ISSUED: May 16, 1995 (19950516)
INVENTOR(s): Zaun, Peter, Libertyville, IL (Illinois), US (United States of America)
Bouma, Stanley R., Grayslake, IL (Illinois), US (United States of America)
Gordon, Julian, Lake Bluff, IL (Illinois), US (United States of America)
Kotlarik, John J., Vernon Hills, IL (Illinois), US (United States of America)
ASSIGNEE(s): Abbott Laboratories, (A U.S. Company or Corporation), Abbott, IL (Illinois), US (United States of America)
[Assignee Code(s): 152]
APPL. NO.: 8-140,731
FILED: October 21, 1993 (19931021)
FULL TEXT: 2332 lines

ABSTRACT

Methods, devices, apparatus and kits for amplifying and detecting nucleic acid are provided. The apparatus is a two-tier thermal cycling device that operates in conjunction with a reaction/detection unit. A sample is loaded into a reaction chamber of the device which is then mated with a detection chamber to form the reaction detection unit. A first heating element of the thermal cycling apparatus applies a desired temperature to the reaction/detection device to amplify target nucleic acid in the sample. The reaction mixture is then transferred to the detection chamber by the second heating element and amplified target nucleic acid is immobilized on a support in the detection chamber. A detection system associated with the apparatus detects and analyzes the immobilized amplified nucleic acid target.

5/3,AB/24 (Item 14 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02370100
Utility
LACTAM-CONTAINING COMPOSITIONS AND METHODS USEFUL FOR THE HYBRIDIZATION OF NUCLEIC ACIDS

PATENT NO.: 5,376,529
ISSUED: December 27, 1994 (19941227)
INVENTOR(s): Van Ness, Jeffrey, Bothell, WA (Washington), US (United States of America)
Vermeulen, Nicolaas M. J., Woodinville, WA (Washington), US (United States of America)
ASSIGNEE(s): MicroProbe Corporation, (A U.S. Company or Corporation), Bothell, WA (Washington), US (United States of America)
[Assignee Code(s): 22189]
EXTRA INFO: Assignment transaction [Reassigned], recorded January 16, 1996 (19960116)
APPL. NO.: 7-807,525
FILED: December 13, 1991 (19911213)

This application is a divisional of U.S. application Ser. No. 07-558,896, filed Jul. 27, 1990, now U.S. Pat. No. 5,106,750, which in turn is a continuation-in-part of U.S. application Ser. No. 07-384,235, filed Jul. 24, 1989, now abandoned which application is incorporated by reference herein.

FULL TEXT: 945 lines

ABSTRACT

This invention relates to novel methods for the release of nucleic acids from cells in complex biological samples or specimens to prepare and make available the nucleic acid material present for a hybridization assay or for extraction. Novel methods for hybridization of nucleic acids are also presented. In particular methods are described for isolating nucleic acid from a sample containing a complex biological mixture of nucleic acid and non-nucleic acids wherein the sample is combined with a hybridization medium comprising a lactam which promotes and enables nucleic acid pairing when complementary nucleic acid is introduced. The lactam is preferably about 5 to about 70% of the hybridization medium and is most preferably 2-pyrrolidone, N-ethyl-2-pyrrolidone, N-cyclohexyl-2-pyrrolidone, N-dodecyl -2-pyrrolidone, N-methyl-2-pyrrolidone, N-hydroxyethyl-2-pyrrolidone, N-methyl-2-piperidone, 2- epsilon -caprolactam, N-methyl-2-caprolactam, 2-piperidone or N-(4-hydroxybenzyl)pyrrolidone.

5/3,AB/26 (Item 16 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02275752
Utility
METHODS, KITS, AND REACTIVE SUPPORTS FOR 3' LABELING OF OLIGONUCLEOTIDES
[Detectable marking for automatic analysis]

PATENT NO.: 5,290,925
ISSUED: March 01, 1994 (19940301)
INVENTOR(s): Fino, James R., Antioch, IL (Illinois), US (United States of America)
ASSIGNEE(s): Abbott Laboratories, (A U.S. Company or Corporation), Abbott Park, IL (Illinois), US (United States of America)
[Assignee Code(s): 152]
APPL. NO.: 7-630,908
FILED: December 20, 1990 (19901220)

FULL TEXT: 578 lines

ABSTRACT

In a first aspect, the invention involves a reactive support useful for automated synthesis of oligonucleotides. The reactive support comprises a label moiety (e.g. hapten) covalently bonded via a stable bond to a trifunctional spacer. The labeled trifunctional spacer complex is covalently bonded to a solid support via a cleavable bond. One arm of the trifunctional spacer attaches the solid phase; another arm attaches the label; while the third arm provides a hydroxyl group useful for synthesizing a labeled oligonucleotide. Upon synthesis, the cleavable bond is broken, yielding the labeled oligonucleotide. Methods for labeling oligonucleotides and useful kits are also described.
? FILE HOME

PCR Methods Appl 1994 Feb;3(4):S51-S64

Ligase chain reaction (LCR)--overview and applications.

Wiedmann M, Wilson WJ, Czajka J, Luo J, Barany F, Batt CA

Department of Food Science, Cornell University, Ithaca, New York 14853.

MeSH Terms:

* Animal
* Bacteria/isolation & purification
* Bacteria/genetics
* Base Sequence
* DNA Primers
* DNA, Bacterial
* Gene Amplification/methods*
* Hereditary Diseases/genetics
* Hereditary Diseases/diagnosis
* Human
* Ligases*
* Molecular Sequence Data
* Support, Non-U.S. Gov't
* Support, U.S. Gov't, Non-P.H.S.
* Support, U.S. Gov't, P.H.S.
* Viruses/isolation & purification
* Viruses/genetics

Substances:

* DNA, Bacterial
* DNA Primers
* Ligases

PMID: 8173509, MUID: 94227740

Biologicals 1996 Sep;24(3):197-199

Ligase chain reaction.

Lee HH

Department of Haematology, University of Cambridge, U.K.

MeSH Terms:

* DNA/analysis*
* Gene Amplification/methods*
* Human
* Ligases/metabolism*
* Sensitivity and Specificity

Substances:

* DNA
* Ligases

PMID: 8978918, MUID: 97133522

Other Formats: [MEDLINE Format]
Links: [125 medline neighbors]

Hum Cell 1993 Jun;6(2):143-147

Ligase chain reaction.

Yamanishi K, Yasuno H

Department of Dermatology, Kyoto Prefectural University of Medicine, Japan.

Ligase chain reaction (LCR) is a ligation-mediated amplification technique of a target DNA sequence using oligonucleotides and thermostable ligase. LCR is useful for the detection of known DNA sequences and point mutations in a limited amount of DNA. We introduce the principle, development, and protocol of this simple and convenient technique for DNA analysis.

MeSH Terms:

* Base Sequence
* DNA/genetics*
* English Abstract
* Gene Amplification/methods*
* Globin/genetics
* Human
* Molecular Sequence Data
* Oligonucleotides/genetics
* Point Mutation
* Polydeoxyribonucleotide Synthetases

Substances:

* DNA
* Globin
* Oligonucleotides
* Polydeoxyribonucleotide Synthetases

PMID: 8217953, MUID: 94031974

Other Formats: [MEDLINE Format]
Links: [134 medline neighbors]

Ann Biol Clin (Paris) 1993;51(9):821-826

The ligase chain reaction in DNA-based diagnosis.

Laffler TG, Carrino JJ, Marshall RL

Abbott Laboratories, Diagnostics Division, Abbott Park, IL 60064.

Clinical specimens containing a suspected pathogen often have too little of the pathogen's DNA to be detected directly. It is generally necessary to first amplify the DNA and then to detect the amplification products. An amplification technique called the ligase chain reaction (LCR) is described, which in conjunction with an automated, nonradioactive readout format allows less than 10 molecules of target DNA to be detected. A prototype HIV assay and two prototype Chlamydia assays have sensitivities and specificities equivalent to PCR.

MeSH Terms:

* Chlamydia trachomatis/genetics
* DNA, Bacterial/isolation & purification
* DNA, Viral/isolation & purification*
* Gene Amplification/methods*
* Human
* HIV-1/genetics*
* In Vitro
* Ligases*
* Plasmids/genetics

Substances:

* Plasmids
* DNA, Viral
* DNA, Bacterial
* Ligases

PMID: 8166397, MUID: 94219756

Other Formats: [MEDLINE Format]
Links: [202 medline neighbors]

Mutat Res 1992 Oct;283(2):119-123

Evaluation of the ligase chain reaction (LCR) for the detection of point mutations.

Kalin I, Shephard S, Candrian U

Institute of Toxicology, Swiss Federal Institute of Technology, Schwerzenbach/Zurich.

The ligase chain reaction (LCR) was evaluated as an amplification method for an in vivo mutation assay. Specifically, the ligase was tested for its ability to selectively amplify a DNA sequence mutated at a single base, in the presence of an excess of wild-type DNA. As a model template a 370-bp DNA fragment of the mouse Ha-ras protooncogene containing an A to T mutation at the second position of codon 61 was used. With the commercially available ligase Ampligase (Epicenter), 250 molecules of mutant fragments could be detected by an enzyme-linked immunoassay with digoxigenin marker (giving a

theoretical detection limit of 1 target gene per 10(4) copies of genome). In the analysis of mixtures with corresponding wild-type DNA fragments, a 1:1 mixture resulted in a clearly stronger signal than control samples lacking wild-type and mutant DNA. However, the signal obtained from a 100-fold dilution of the mutant DNA with wild-type DNA could not be distinguished from the background noise. In this particular form, LCR lacks sufficient selectivity to be applied to an in vivo situation, where the ratio of mutant to wild-type DNA sequences might be expected to lie around 1:10(6).

MeSH Terms:

* Animal
* Base Sequence
* Blotting, Southern
* Cloning, Molecular/methods
* DNA/analysis
* Electrophoresis, Polyacrylamide Gel
* Evaluation Studies
* Gene Amplification/methods*
* Genes, ras
* Ligases*
* Mice
* Molecular Sequence Data
* Mutagenicity Tests
* Mutation*
* Polydeoxyribonucleotide Synthetases*
* Polymerase Chain Reaction
* Support, Non-U.S. Gov't
* Templates

Gene Symbols:

* Ha-ras

Substances:

* DNA
* Polydeoxyribonucleotide Synthetases
* Ampligase
* Ligases

PMID: 1381488, MUID: 92389958

Other Formats: [MEDLINE Format]
Links: [209 medline neighbors]

J Clin Microbiol 1993 Mar;31(3):729-731

Amplification of Chlamydia trachomatis DNA by ligase chain reaction.

Dille BJ, Butzen CC, Birkenmeyer LG

Experimental Biology Research, Abbott Diagnostics Division, North Chicago, Illinois 60064.

Amplification of Chlamydia trachomatis DNA by polymerase chain reaction was compared with amplification by ligase chain reaction (LCR). Both amplification procedures were able to consistently amplify amounts of DNA equivalent to three C. trachomatis elementary bodies. All 15 C. trachomatis serovars were amplified to detectable levels by LCR, and no DNA from 16 organisms potentially found in clinical specimens or from Chlamydia psittaci and Chlamydia pneumoniae was amplified by LCR.

MeSH Terms:

* Base Sequence
* Chlamydia/genetics
* Chlamydia trachomatis/isolation & purification*
* Chlamydia trachomatis/genetics
* Comparative Study
* DNA, Bacterial/isolation & purification*
* DNA, Bacterial/genetics
* Gene Amplification/methods*
* Ligases*
* Molecular Sequence Data
* Polymerase Chain Reaction
* Sensitivity and Specificity

Substances:

* DNA, Bacterial
* Ligases

PMID: 8458974, MUID: 93210112

Other Formats: [MEDLINE Format]
Links: [203 medline neighbors]

N Engl J Med 1987 Oct 15;317(16):1023-1025

Genetic diagnosis by DNA analysis: progress through amplification.

[EDITORIAL]

Orkin SH

MeSH Terms:

* DNA/analysis*
* Gene Amplification/methods*
* Hereditary Diseases/diagnosis*
* Human

Substances:

* DNA

PMID: 3657858, MUID: 88014027

Other Formats: [MEDLINE Format]
Links: [117 medline neighbors]

J Clin Gastroenterol 1993 Sep;17(2):171-175

Implications for the ligase chain reaction in gastroenterology.

Zebala JA, Barany F

Department of Microbiology, Hearst Microbiology Research Center, Cornell University Medical College, New York, NY 10021.

The ligase chain reaction (LCR) is a new DNA detection method that uses thermostable ligase to discriminate exquisitely and amplify single base changes in genes of medical interest. This enzyme specifically links two adjacent oligonucleotides when hybridized to a complementary target only when the nucleotides are perfectly base-paired at the junction. Oligonucleotide products are exponentially amplified by thermal cycling of the ligation reaction in the presence of a second set of adjacent oligonucleotides, complementary to the first set and the target. A single-base mismatch prevents ligation and amplification, thus distinguishing a single base mutation from the normal allele. The use of a thermostable ligase allows the enzyme to survive thermal cycling in a fashion analogous to Taq polymerase in the polymerase chain reaction. The assay is compatible with nonradioactive detection and has the potential for automation. Although still in its early stages of development, LCR is expected to find many uses in the field of gastroenterology and in medicine in general. In this review we briefly describe how LCR works and discuss potential areas of application in gastroenterology.

MeSH Terms:

* Gastroenterology/methods*
* Gene Amplification/methods*
* Human
* Polydeoxyribonucleotide Synthetases*
* Support, Non-U.S. Gov't
* Support, U.S. Gov't, P.H.S.

Substances:

* Polydeoxyribonucleotide Synthetases

PMID: 8409324, MUID: 94014249

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the above reports in format.

[Entrez medline Query]

3 citations found

Other Formats: [MEDLINE Format]
Links: [201 medline neighbors] [OMIM]

Proc Natl Acad Sci U S A 1991 Jan 1;88(1):189-193

Genetic disease detection and DNA amplification using cloned thermostable ligase.

Barany F

Department of Microbiology, Cornell University Medical College, New York, NY 10021.

Polymerase chain reaction, using thermostable DNA polymerase, has revolutionized DNA diagnostics. Another thermostable enzyme, DNA ligase, is harnessed in the assay reported here that both amplifies DNA and discriminates a single-base substitution. This cloned enzyme specifically links two adjacent oligonucleotides when hybridized at 65 degrees C to a complementary target only when the nucleotides are perfectly base-paired at the junction. Oligonucleotide products are exponentially amplified by thermal cycling of the ligation reaction in the presence of a second set of adjacent oligonucleotides, complementary to the first set and the target. A single-base mismatch prevents ligation/amplification and is thus distinguished. This method was exploited to detect 200 target molecules as well as to discriminate between normal beta A- and sickle beta S- globin genotypes from 10-microliters blood samples.

MeSH Terms:

* Amino Acid Sequence
* Base Sequence
* Cloning, Molecular
* Escherichia coli/genetics
* Gene Amplification/methods*
* Gene Library
* Globin/genetics*
* Hereditary Diseases/genetics
* Hereditary Diseases/diagnosis*
* Human
* Molecular Sequence Data
* Nucleic Acid Hybridization
* Oligonucleotide Probes
* Phosphorus Radioisotopes
* Polydeoxyribonucleotide Synthetases/genetics
* Polydeoxyribonucleotide Synthetases/diagnostic use*
* Radioisotope Dilution Technique
* Support, U.S. Gov't, Non-P.H.S.
* Support, U.S. Gov't, P.H.S.
* Thermus/genetics
* Thermus/enzymology

Substances:

* Globin
* Phosphorus Radioisotopes
* Oligonucleotide Probes
* Polydeoxyribonucleotide Synthetases

PMID: 1986365, MUID: 91095425

Other Formats: [MEDLINE Format]
Links: [147 medline neighbors] [Nucleic Acids Research]]

Nucleic Acids Res 1995 Feb 25;23(4):675-682

Detection of point mutations with a modified ligase chain reaction (Gap-LCR).

Abravaya K, Carrino JJ, Muldoon S, Lee HH

Abbott Laboratories, Probe Diagnostics Business Unit, Abbott Park, IL 60064.

DNA amplification systems are powerful technologies with the potential to impact a wide range of diagnostic applications. In this study we explored the feasibility and limitations of a modified ligase chain reaction (Gap-LCR) in detection and discrimination of DNAs that differ by a single base. LCR is a DNA amplification technology based on the ligation of two pairs of synthetic oligonucleotides which hybridize at adjacent positions to complementary strands of a target DNA. Multiple rounds of denaturation, annealing and ligation with a thermostable ligase result in the exponential amplification of the target DNA. A modification of LCR, Gap-LCR was developed to reduce the background generated by target-independent, blunt-end ligation. In Gap-LCR, DNA polymerase fills in a gap between annealed probes which are subsequently joined by DNA ligase. We have designed synthetic DNA targets with single base pair differences and analyzed them in a system where three common probes plus an allele-specific probe were used. A single base mismatch either at the ultimate 3' end or penultimate 3' end of the allele specific probe was sufficient for discrimination, though better discrimination was obtained with a mismatch at the penultimate 3' position. Comparison of Gap-LCR to allele-specific PCR (ASPCR) suggested that Gap-LCR has the advantage of having the additive effect of polymerase and ligase on specificity. As a model system, Gap-LCR was tested on a mutation in the reverse transcriptase gene of HIV, specifically, one of the mutations that confers AZT resistance. Mutant DNA could be detected and discriminated in the presence of up to 10,000-fold excess of wild-type DNA.

MeSH Terms:

* Base Sequence
* Codon/genetics
* Comparative Study
* Drug Resistance, Microbial/genetics
* DNA Mutational Analysis*
* Feasibility Studies
* Gene Amplification/methods*
* Genes, Structural, Viral
* HIV-1/genetics
* HIV-1/drug effects
* Molecular Sequence Data
* Nucleic Acid Hybridization
* Oligodeoxyribonucleotides/genetics
* Oligodeoxyribonucleotides/chemical synthesis
* Point Mutation*

* Polydeoxyribonucleotide Synthetases/metabolism*
* Polymerase Chain Reaction
* RNA-Directed DNA Polymerase/genetics
* Sensitivity and Specificity
* Zidovudine/pharmacology

Substances:

* Zidovudine
* Oligodeoxyribonucleotides
* Codon
* Polydeoxyribonucleotide Synthetases
* RNA-Directed DNA Polymerase
* HIV-1 Reverse Transcriptase

PMID: 7534908, MUID: 95206950

Other Formats: [MEDLINE Format]
Links: [144 medline neighbors]

J Virol Methods 1994 Oct;49(3):353-360

A ligase chain reaction targeting two adjacent nucleotides allows the differentiation of cowpox virus from other Orthopoxvirus species.

Pfeffer M, Meyer H, Wiedmann M

Institute for Medical Microbiology, Infectious and Epidemic Diseases, Ludwig-Maximilians University, Munich, Germany.

A ligase chain reaction (LCR) assay was developed to distinguish cowpox virus from other Orthopoxvirus species. The LCR targets two adjacent adenosine residues which are only present in the A-type inclusion protein gene (ATI-gene) of cowpox virus. Two primer pairs were designed with a one base pair overlap at the junction site and one primer of each pair was labeled radioactively. Detection of the ligation product was achieved after denaturing polyacrylamide gel electrophoresis and autoradiography. Prior to LCR, the corresponding region of the ATI-gene was amplified by a consensus primer-directed polymerase chain reaction. All 18 cowpox virus isolates investigated could be clearly discriminated from 10 vaccinia virus strains, 5 camelpox virus isolates, as well as from mousepox and monkeypox virus reference strains. The LCR method allows a fast identification of cowpox virus isolates and is a feasible tool for the analysis of small mutations within viral genes.

MeSH Terms:

* Animal
* Base Sequence
* Comparative Study
* Cowpox Virus/isolation & purification
* Cowpox Virus/genetics*
* DNA Primers/genetics
* DNA, Viral/genetics
* Gene Amplification/methods*

* Genes, Viral
* Molecular Sequence Data
* Orthopoxvirus/genetics*
* Orthopoxvirus/classification
* Polydeoxyribonucleotide Synthetases
* Polymerase Chain Reaction
* Species Specificity
* Support, Non-U.S. Gov't
* Virology/methods*

Gene Symbols:

* ATI

Substances:

* DNA, Viral
* DNA Primers
* Polydeoxyribonucleotide Synthetases

PMID: 7868651, MUID: 95173156

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the above reports in format.

[Entrez medline Query]

3 citations found

Other Formats: [MEDLINE Format]
Links: [206 medline neighbors]

Ariz Med 1981 Oct;38(10):769-771

An overview of genetic counseling.

Wagner RC

MeSH Terms:

* Arizona
* Chromosome Abnormalities/diagnosis
* Genetic Counseling*
* Hereditary Diseases/diagnosis
* Human

PMID: 7316813, MUID: 82090527

Other Formats: [MEDLINE Format]
Links: [205 medline neighbors]

PCR Methods Appl 1991 Aug;1(1):5-16

The ligase chain reaction in a PCR world.

Published erratum appears in PCR Methods Appl 1991 Nov;1(2):149

Barany F

Department of Microbiology, Hearst Microbiology Research Center, Cornell University Medical College, New York, NY 10021.

MeSH Terms:

* Base Sequence
* Cloning, Molecular
* DNA/genetics
* Human
* Molecular Sequence Data
* Polydeoxyribonucleotide Synthetases/genetics
* Polymerase Chain Reaction/methods*
* Support, U.S. Gov't, Non-P.H.S.
* Support, U.S. Gov't, P.H.S.
* Temperature

Substances:

* DNA
* Polydeoxyribonucleotide Synthetases

PMID: 1842922, MUID: 93113314

Other Formats: [MEDLINE Format]
Links: [140 medline neighbors]

Appl Environ Microbiol 1993 Aug;59(8):2743-2745

Detection of Listeria monocytogenes with a nonisotopic polymerase chain reaction-coupled ligase chain reaction assay.

Wiedmann M, Barany F, Batt CA

Department of Food Science, Cornell University, Ithaca, New York 14853.

A polymerase chain reaction (PCR)-coupled ligase chain reaction (LCR) assay for the specific detection of Listeria monocytogenes (M. Wiedmann, J. Czajka, F. Barany, and C. A. Batt, Appl. Environ. Microbiol. 58:3443-3447, 1992) has been modified for detection of the LCR products with a nonisotopic readout. When a chemiluminescent or a colorimetric substrate for the nonisotopic detection of the LCR products was used, the PCR-coupled LCR gave a sensitivity of 10 CFU of L. monocytogenes. The detection method with the chemiluminescent substrate Lumi-Phos 530 permitted detection of the LCR products in less than 3 h, so that the whole assay can be completed within 10 h.

MeSH Terms:

* Base Sequence

* DNA, Bacterial/genetics
* Evaluation Studies
* Listeria monocytogenes/isolation & purification*
* Listeria monocytogenes/genetics*
* Molecular Sequence Data
* Polydeoxyribonucleotide Synthetases
* Polymerase Chain Reaction/statistics & numerical data
* Polymerase Chain Reaction/methods*
* Sensitivity and Specificity
* Support, Non-U.S. Gov't
* Support, U.S. Gov't, Non-P.H.S.
* Support, U.S. Gov't, P.H.S.

Substances:

* DNA, Bacterial
* Polydeoxyribonucleotide Synthetases

PMID: 8368859, MUID: 93378455

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the above reports in format.

[Entrez medline Query]

3 citations found

Other Formats: [MEDLINE Format]
Links: [206 medline neighbors]

Ariz Med 1981 Oct;38(10):769-771

An overview of genetic counseling.

Wagner RC

MeSH Terms:

* Arizona
* Chromosome Abnormalities/diagnosis
* Genetic Counseling*
* Hereditary Diseases/diagnosis
* Human

PMID: 7316813, MUID: 82090527

Other Formats: [MEDLINE Format]
Links: [205 medline neighbors]

PCR Methods Appl 1991 Aug;1(1):5-16

The ligase chain reaction in a PCR world.

Published erratum appears in PCR Methods Appl 1991 Nov;1(2):149

Barany F

Department of Microbiology, Hearst Microbiology Research Center, Cornell University Medical College, New York, NY 10021.

MeSH Terms:

* Base Sequence
* Cloning, Molecular
* DNA/genetics
* Human
* Molecular Sequence Data
* Polydeoxyribonucleotide Synthetases/genetics
* Polymerase Chain Reaction/methods*
* Support, U.S. Gov't, Non-P.H.S.
* Support, U.S. Gov't, P.H.S.
* Temperature

Substances:

* DNA
* Polydeoxyribonucleotide Synthetases

PMID: 1842922, MUID: 93113314

Other Formats: [MEDLINE Format]
Links: [140 medline neighbors]

Appl Environ Microbiol 1993 Aug;59(8):2743-2745

Detection of Listeria monocytogenes with a nonisotopic polymerase chain reaction-coupled ligase chain reaction assay.

Wiedmann M, Barany F, Batt CA

Department of Food Science, Cornell University, Ithaca, New York 14853.

A polymerase chain reaction (PCR)-coupled ligase chain reaction (LCR) assay for the specific detection of Listeria monocytogenes (M. Wiedmann, J. Czajka, F. Barany, and C. A. Batt, Appl. Environ. Microbiol. 58:3443-3447, 1992) has been modified for detection of the LCR products with a nonisotopic readout. When a chemiluminescent or a colorimetric substrate for the nonisotopic detection of the LCR products was used, the PCR-coupled LCR gave a sensitivity of 10 CFU of L. monocytogenes. The detection method with the chemiluminescent substrate Lumi-Phos 530 permitted detection of the LCR products in less than 3 h, so that the whole assay can be completed within 10 h.

MeSH Terms:

* Base Sequence
* DNA, Bacterial/genetics
* Evaluation Studies

* Listeria monocytogenes/isolation & purification*
* Listeria monocytogenes/genetics*
* Molecular Sequence Data
* Polydeoxyribonucleotide Synthetases
* Polymerase Chain Reaction/statistics & numerical data
* Polymerase Chain Reaction/methods*
* Sensitivity and Specificity
* Support, Non-U.S. Gov't
* Support, U.S. Gov't, Non-P.H.S.
* Support, U.S. Gov't, P.H.S.

Substances:

* DNA, Bacterial
* Polydeoxyribonucleotide Synthetases

PMID: 8368859, MUID: 93378455

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the above reports in format.

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Trying 01083...Open

PLEASE ENTER HOST PORT ID:
PLEASE ENTER HOST PORT ID:x
LOGINID:d180JXR
Trying 01180...Open

PLEASE ENTER HOST PORT ID:
PLEASE ENTER HOST PORT ID:x
LOGINID:d180JXR
PASSWORD:
TERMINAL (ENTER 1, 2, 3, 4, OR ?):□3


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  *    OCTOBER 27, 1998  for U.S. Patent Text Data.               *
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  *    OCTOBER 27, 1998  for U.S. Patent Image Data.              *
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  * More U.S. patent data is now available on APS.  The new      *
  * USOCR file contains patents issued in 1970, plus some        *
  * patents that were missing from the USPAT file.  See the      *
  * Patents News Folder under the Public Folders in e-mail for   *
  * more information on using the new file.  Thank you.          *
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  *  DISCLAIMER:                                                  *
  *  Neither the United States Government, nor any agency         *
  *  thereof, nor any of their contractors, subcontractors or     *
  *  employees make any warranty, expressed or implied,           *
  *  including any warranty of marketability of fitness for a     *
  *  particular purpose; nor assumes any legal liability or       *
  *  responsibility for any party's use, or the results of        *
  *  such, of the data.                                           *
  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
  *                Help Desk --> 703-305-9000                     *
  *                                                               *
  *    The Help Desk is staffed for APS support 7 days/week.      *
  *      Monday through Friday:      6:30am - 9:00pm              *
  *      Saturday, Sunday, Holidays: 8:30am - 5:00 pm             *
  *                                                               *
  *    The Help Desk staff at this number will handle all APS     *
  *    related questions.                                         *
  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
  *    >>>>>>>>>>>>> NEW SUNDAY HOURS !!! <<<<<<<<<<<<<           *
  *                                                               *
  *    The APS is available:                                      *
  *            6:30am - 9:00pm Monday through Friday              *
  *            7:30am - 5:00pm Saturday, Sunday, Holidays         *
  *                                                               *
  *      APS is unavailable Thanksgiving Day, Christmas Day,      *
  *      and New Year's Day.                                      *
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FILE 'USPAT' ENTERED AT 16:58:28 ON 28 OCT 1998

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  *              W E L C O M E   T O   T H E                      *
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=> s (ligase (4a) detection or LDR) (p) array#

         5420 LIGASE
       238659 DETECTION
          472 LDR
       186362 ARRAY#
```

L1 10 (LIGASE (4A) DETECTION OR LDR) (P) ARRAY#

=> d cit fd ab kwic

1. 5,740,461, Apr. 14, 1998, Data processing with multiple instruction sets; David Vivian Jaggar, 395/800.41, 385, 386, 570 [IMAGE AVAILABLE]

US PAT NO: 5,740,461 [IMAGE AVAILABLE] L1: 1 of 10
DATE FILED: Oct. 22, 1996

ABSTRACT:
A data processing system is described utilising two instruction sets. Both instruction sets control processing using full N-bit data pathways within a processor core 2. One instruction set is a 32-bit instruction set and the other is a 16-bit instruction set. Both instruction sets are permanently installed and have associated instruction decoding hardware 30, 36, 38.

DETDESC:

DETD(39)
. . .
Loads a word PC + Offset (256 words, 1024 bytes). Note the offset must be word aligned.
LDR Rd, [PC, #+1024]
This instruction is used to access the next literal pool, to load constants, addresses etc.. . .
Offset (Post Inc/Dec), Forced Writeback
L is Load/Store, U is Up/Down (add/subtract offset), B is Byte/Word
LDR {B} Rd, [Rb], #+/-Offset3
STR {B} Rd, [Rb], #+/-Offset3
These instructions are intended for array access
The offset encodes 0-7 for bytes and 0, 4-28 for words
Format 10:
Load and Store. . . Register
Offset (Pre Inc/Dec), No writeback
L is Load/Store, U is Up/Down (add/subtract offset), B is Byte/Word
LDR Rd, [Rb, +/-Ro, LSL#2]
STR Rd, [Rb, +/-Ro, LSL#2]
LDRB Rd, [Rb, +/-Ro]
STRB Rd, [Rb, +/-Ro]
These instructions. . . Byte) with signed 5 bit
Immediate Offset (Pre Inc/Dec), No Writeback
L is Load/Store B is Byte/Word
LDR {B} Rd, [Rb, #+Offset5]
STR {B} Rd, [Rb, #+Offset5]
These instructions are intended for structure access
The. . .

=> d cit fd ab kwic 2-10

2. 5,568,646, Oct. 22, 1996, Multiple instruction set mapping; David V. Jaggar, 395/385; 364/231.8, 237.9, 258, 259.9, DIG.1; 395/800.41 [IMAGE AVAILABLE]

US PAT NO: 5,568,646 [IMAGE AVAILABLE] L1: 2 of 10
DATE FILED: Sep. 19, 1994

ABSTRACT:
A data processing system is described utilising multiple instruction sets. The program instruction words are supplied to a processor core 2 via an instruction pipeline 6. As program instruction words of a second instruction set pass along the instruction pipeline, they are mapped to program instruction words of the first instruction set. The second instruction set has program instruction words of a smaller bit size than those of the first instruction set and is a subset of the first instruction set. Smaller bit size improves code density, whilst the nature of the second instruction set as a subset of the first instruction set enables a one-to-one mapping to be efficiently performed and so avoid the need for a dedicated instruction decoder for the second instruction set.

DETDESC:

DETD(39)

. . .

Loads a word PC + Offset (256 words, 1024 bytes). Note
7: the offset must be word aligned.
LDR Rd,[PC,#+1024]
This instruction is used to access the next literal pool, to load constants, addresses etc.

Format

. . .

9: Offset (Post Inc/Dec), Forced Writeback
L is Load/Store, U is Up/Down (add/subtract offset), B is Byte/Word
LDR {B} Rd, [Rb],#+/-Offset3
STR {B} Rd, [Rb],#+/-Offset3
These instructions are intended for array access
The offset encodes 0 - 7 for bytes and 0, 4 - 28 for words

Format

. . .

10: Offset (Pre Inc/Dec), No writeback
L is Load/Store, U is Up/Down (add/subtract offset), B is Byte/Word
LDR Rd,[Rb, +/-Ro, LSL#2]
STR Rd,[Rb, +/-Ro, LSL#2]
LDRB Rd,[Rb, +/-Ro]
STRB Rd,[Rb, +/-Ro]
These instructions are. . . Byte) with signed 5 bit
11: Immediate Offset (Pre Inc/Dec), No Writeback
L is Load/Store B is Byte/Word
LDR{B} Rd, [Rb,#+Offset5]
STR{B} Rd, [Rb,#+Offset5]
These instructions are intended for structure access
The offset encodes 0 -. . .

3. 5,502,576, Mar. 26, 1996, Method and apparatus for the transmission, storage, and retrieval of documents in an electronic domain; Thomas E. Ramsay, et al., 358/444, 403, 404 [IMAGE AVAILABLE]

US PAT NO: 5,502,576 [IMAGE AVAILABLE] L1: 3 of 10
DATE FILED: Aug. 24, 1992

ABSTRACT:
A method and apparatus for high speed conversion of tangible source documents to electronic images, and subsequent transmission or storage and retrieval of images, utilizing hybrid signal processing. The system employs a higher bandwidth analog signal for image capture and lower effective bandwidth analog signal for transmission or storage and retrieval, with an intervening digital memory utilized to construct a bitmap of the image to facilitate various dissection and seaming schemes which optimize image content and processing time. The system is designed around a conventional bus structure, and the memory serves as a junction with conventional personal computers, networks, and peripheral devices. In a representative embodiment, a tangible image is captured using a camera producing an analog signal with conventional raster synchronization. The synchronization is stripped from the analog signal, which is digitized for 8-bit grayscale and multiplexed to the memory where the image exists as a bitmap that may be divided into segments. The content is read from the memory, converted to an analog signal, and control signals are added. The control signals include horizontal and vertical sync pulses and interval blanking, a pilot signal to maintain alignment between adjacent segments along seams and to compensate for time-based errors, and calibration pulses to permit instantaneous adjustment of the gray level for each line, ensure accurate image content, and permit display enhancement. The resultant analog signal is stored on a randomly accessible storage medium as one or more frames, transmitted and reassembled, or displayed on a conventional monitor.

SUMMARY:

BSUM(128)

In . . . which is then digitized in 8-bit grayscale and multiplexed to the memory buffer where the image exists as a digital array or bitmap that may be divided into a plurality of segments. The digital content is read from the memory buffer. . . resultant analog signal is stored on a randomly accessible storage medium such as a conventional analog optical laser disk recorder (LDR) as one or more frames (each

frame corresponding to a segment of the electronic image), or the resultant signal may. . .

DETDESC:

DETD(23)

The digital **array** associated with a particular electronic image may be stored to or retrieved from a conventional digital storage device 62 such. . . connected through a mechanical or electronic switch 66 to the input channel of the analog-to-digital converter 54. A Sony Model **LDR**-5000A optical disc recorder/player (EIA Standard) has proven suitable.

DETDESC:

DETD(26)

The . . . document may then be stored on an analog storage device 70 such as an analog WORM optical laser disk recorder (**LDR**) by dumping the digital **array** from memory 60 as a conventional 4 Mhz clock speed digital transmission signal and processing that signal through the first. . .

4. 5,105,186, Apr. 14, 1992, LCD touch screen; Gregory J. May, 345/175; 341/31; 345/84, 207 [IMAGE AVAILABLE]

US PAT NO: 5,105,186 [IMAGE AVAILABLE] L1: 4 of 10
DATE FILED: May 25, 1990

ABSTRACT:
A touch screen includes a liquid crystal display (LCD) having a viewing surface through which light passes into and out of the display and a back surface comprising a transflector such as transflective film. The transflector reflects some of the light back through the display and viewing surface and transmits some of the light. An array of light dependent resistors (LDRs) or equivalent light detecting devices underlie the transflector and detect a change in the transmitted light caused by a touching of the viewing surface. The light detecting array may be integrated into a keyboard interface. Keys are then displayed on the viewing surface opposite LDRs in the array to indicate where the viewing surface must be touched to actuate a key.

DETDESC:

DETD(11)

Several techniques for adjusting the threshold are shown in FIGS. 6A and 6B. In FIG. 6A, an **LDR** 34 in **array** 28 is shown connected to a comparator 60. The comparator compares a voltage Vrc measured between **LDR** 34 and a capacitor 64 against a reference voltage Vref. The output of comparator 60 is inverted and applied to. . . line 68 and a clock line 70. When the OR line is strobed high, an RC circuit is formed with **LDR** 34 and capacitor 64 to ground. As Vrc rises, gate 66 produces pulses that are counted by a counter 72. . . then read by CPU 32. The pulse count obtained during the strobe is a measure of the light intensity hitting **LDR** 34: the lower the intensity (caused by a darker shadow), the greater the resistance and the higher the count. The. . . into account by the CPU 32 in reviewing the counts versus a reference count. If the LDRs 34 within the **array** 28 uniformly show a change in light intensity, the CPU may judge this to be a change in ambient light. . .

DETDESC:

DETD(12)

FIG. 6B shows an alternative embodiment of a threshold adjustment means which is simpler in design. The voltage Vd between **LDR** 34 and a resistor 74 to ground is applied as the analog input to an analog-to-digital converter (ADC) 76. When. . . 23 has been touched. As in the first embodiment, the reference values may be adjusted if the LDRs 34 across **array** 28 uniformly show a change in detected light intensity.

5. 4,876,641, Oct. 24, 1989, Vlsi data processor containing an array of ICs, each of which is comprised primarily of an array of processing; Colin H. Cowley, 395/800.13; 364/228.3, 229.4, 231.9, 232.8, 238, 238.6,

238.7, 252, DIG.1; 395/800.15 [IMAGE AVAILABLE]

US PAT NO: 4,876,641 [IMAGE AVAILABLE] L1: 5 of 10
DATE FILED: Jul. 31, 1987

ABSTRACT:
A data processor comprises an array of integrated circuits (ICs), each of which comprises an array of data processing elements (PEs) connected to allow transfer of data. The PEs of the data processor may be organized into array-wide rows and columns with data transfer along each row or column. Rows and columns may be subdivided into sections, such division being either intra-chip (all PEs on one IC) or inter-chip (PEs from different ICs), and each section may be arranged for cyclical data transfer within the section. Shift registers with parallel outputs for intra-chip data transfer may be combined with a multiplexer for selecting between parallel data paths and a parallel data output of a local memory for each PE. Similarly, shift registers with serial outputs for inter-chip data tranfer may be combined with a multiplexer for selecting between serial data paths and serial outputs of the shift registers.

DETDESC:

DETD(6)

The . . . receive signals N, E, S and W from the serial output paths 14 of the four neighbouring PEs in the **array**, in the north, east, south ad west directions respectively. Inputs 4-7 are not relevant to the present invention. Input 8 receives a signal **LDR** from a long-distance routing circuit as will be described below with reference to FIG. 5.

6. 4,696,558, Sep. 29, 1987, Focus condition detecting arrangement; Toshihiko Karasaki, et al., 396/104 [IMAGE AVAILABLE]

US PAT NO: 4,696,558 [IMAGE AVAILABLE] L1: 6 of 10
DATE FILED: Oct. 8, 1986

ABSTRACT:
In a focus condition detecting arrangement for use in a photographic camera, a focus condition detecting device including photo-sensor arrays having sensitivity with respect to a visible light and an infrared light from a target object to be photographed produces a focus condition detection signal based on an output of the photo-sensor arrays. A contrast detecting device which detects the visible light and the infrared light from the target object for detecting contrasts of the target object with respect to the respective lights, and a correcting means corrects the focus condition detection signal based on the output of the contrast detecting device, so that a corrected focus condition detection signal of the target object with respect to the visible light region is obtained.

DETDESC:

DETD(27)

Reference . . . one example of the circuit construction for driving the photo-sensor device and processing outputs therefrom. As described earlier, the photo-sensor **array** 50 has the standard portion 50S and the reference portion 50R, while the other photo-sensor **array** 52 includes the infrared light area 52R and the visible light areas 52V as shown in FIG. 9. It should be noted here that the number of picture elements constituting the photo-sensor **arrays** 50 and 52 need not necessarily be the same, but it is possible to decrease one of the numbers, for example, by roughening the pitch of the picture elements for the photosensor **array** 52 for the purpose of shortening the time period required for serial output of the individual picture element output signals.. . . that the numbers of the picture elements for the infrared light area and the visible light area of the photo-sensor **array** 52 become equal to each other. The output signals of the photo-sensor **arrays** 50 and 52 are produced from a common output terminal Vss through shift resistors RE.sub.1 and RE.sub.2 connected therewith as. . . circuit DP, a motor driving circuit MDR, an encoder EN for monitoring the driving amount of a lens driving mechanism **LDR**. a circuit OSC, and an interface circuit IF for receiving data necessary for lens driving from the lens data output. . .

7. 4,523,140, Jun. 11, 1985, Precision current mirror arrays; Herbert A. Schneider, 323/315; 330/288 [IMAGE AVAILABLE]

US PAT NO: 4,523,140 [IMAGE AVAILABLE] L1: 7 of 10
DATE FILED: Jan. 3, 1983

ABSTRACT:
The subject array structure provides a large current mirror array which generates a plurality of substantially equal output currents from high impedance sources in response to at least one input control current. This array structure reduces the control current deviation problem of prior art current mirror circuits.

DETDESC:

DETD(24)

With . . . is apparent that for the current mirror element of FIG. 2 being the basic building block of a current mirror **array**, the above formula is given by: ##EQU6## for that case. These equations can be expanded and they become respectively: ##EQU7##. . . It is apparent that the first term of each of these equations is a constant dependent upon the current mirror **array** size. The second most significant term is a linear function of r, the row number of the nodal crosspoint; the. . . for successive terms. Thus, it is obvious that the difference in exit currents among the columns of a current mirror **array** will be given by: ##EQU8## where (**ldr**) indicates the term is a linear function of r and (qdr) indicates the term is a quadratic term of r.

DETDESC:

DETD(26)

Thus, to minimize the deviation range, it is important to first minimize the linear (**ldr**) term of each equation. This can only be accomplished by selecting the nodal crosspoints so that the sum of the. . . axis and also providing equal exposure horizontally with each column having the same number of nodal crosspoints on a total **array** basis.

DETDESC:

DETD(28)

Thus, the table of FIG. 10 illustrates the minimum **ldr** obtainable for all combinations of n and p with an n*n **array**. For an n*m **array** (where m is an integer multiple of n) this basic n*m **array** can simply be replicated m/n times to obtain the same result.

8. 4,374,380, Feb. 15, 1983, Automotive electrical network voltage regulation monitoring circuit; Ulrich Giepen, et al., 340/660; 322/99; 340/635, 645, 653 [IMAGE AVAILABLE]

US PAT NO: 4,374,380 [IMAGE AVAILABLE] L1: 8 of 10
DATE FILED: Dec. 4, 1979

ABSTRACT:
To provide a visible output indication, for example by an indicator light on a controller supervisory panel of the vehicle, of proper functioning of the voltage regulator power transistor, monitoring circuits are provided which sense the electrical condition of current flow through or the voltage condition of the field winding or output bus respectively by including a light emitting diode (LED) in an indicator circuit, for example by connecting it in series to the coupling resistor. In one form, a Zener diode Z (FIG. 1) is connected across the output bus with the LED in series, so that the LED will light if the output bus reaches a voltage which might damage the battery, for example due to short circuit or alloying-through of the output transistor T of the voltage regulator; in another form, an LED which preferably is green, LDg (FIG. 2), is connected across the output transistor, the green LED lighting if the output transistor functions properly, but extinguishing if the output transistor alloys-through; the LED with the Zener diode and the green LED can be provided together to form alternate outputs--green indicating proper operation and red already danger; in another form, an LED, preferably also green (FIG. 3) is connected across the field winding so that, if the output transistor T' should burn through, extinction of the green diode will indicate that the field no longer receives energization. Of course, the usually provided charge control lamp will then also light since the alternator will no longer furnish output, so that the combination of the green LED across the field with the charge control lamp again provides an alternate output indication, the extinction of the particular green LED pinpointing the trouble which caused the charge

control lamp to light.

DETDESC:

DETD(7)

In a particularly preferred example, the circuits of FIGS. 1 and 3 are combined, that is, the LED's **LDr** and LDg1 are placed adjacent each other in a monitoring **array**. A continuous green light will indicate proper operation of the circuit, that is, current flow through the winding W. Should. . . shortly, the voltage in the on-board network will rise and an additional red warning will be obtained from the diode **LDr**. An open circuit of the output transistor T' (FIG. 3) will be indicated by total failure of any output from the monitoring **array**.

9. 4,310,879, Jan. 12, 1982, Parallel processor having central processor memory extension; Arun K. Pandeya, 395/800.32; 364/228.3, 231.9, 237.8, 243, 243.1, 244.8, 245, 245.31, 245.5, 245.8, 248.1, 258, 258.1, 258.2, 259, 259.2, 260, 260.2, 262, 262.1, 262.4, 262.7, 262.8, 264, 264.1, 265, 285, 285.3, DIG.1 [IMAGE AVAILABLE]

US PAT NO: 4,310,879 [IMAGE AVAILABLE] L1: 9 of 10
DATE FILED: Mar. 8, 1979

ABSTRACT:
An array processor which is an integral part of a central processing unit (CPU) has a local memory which is part of main memory address space. Furthermore, the array procesor has its own port into the local memory, leaving a system bus free while the array processor is working. The array processor is controlled so that data can be transferred between the main memory and the local memory either before, during, or after operation of data manipulation hardware which is part of the array processor. This data manipulation hardware utilizes a fast multiplier, and fast add, subtract, & compare circuitry. The array processor is controlled by a 76 bit microcode extension to one sector of a number of sectors of a control store in the CPU. The microcode extension can be overriden by interrupt and other control signals generated by the CPU.

DETDESC:

DETD(196)

Load Real **Array**
LDR
##STR180##
##STR181##
LDRP
##STR182##
##STR183##
##STR184##
n = 0, 1, . . . , N-. . .

0	--	Error mask.
1	--	Trap address.
2	N	Element count.
4	Z.sub.o	INDEX Index of real **array** Z.
6	M.sub.o	ADDR Main memory address of real **array** Z.
7	S.sub.M	Step value for **array** M.
10*	S.sub.Z	Step value for **array** Z.

---

*LDR only.

10. 3,683,332, Aug. 8, 1972, NUMBER COMPARING SYSTEM; Robert W. Steiger, et al., 340/146.2, 825.32 [IMAGE AVAILABLE]

US PAT NO: 3,683,332 [IMAGE AVAILABLE] L1: 10 of 10
DATE FILED: Sep. 4, 1970

ABSTRACT:
A number comparing system usable in checking credit cards, inventory control, and many other areas. An input device is provided for setting a number to be verified, this number may be read electronically from a credit card or ticket, or it may be set manually be mans of knobs and dials, etc. A high speed tape unit, which may use punched paper tape or magnetic tape, acts as a memory and readout unit. A logic system compares

the number to be verified with numbers read from the memory. The logic system actuates an indicator or alarm to confirm verification, or to attract attention, as to a stolen credit card.

DETDESC:

DETD(13)

A sixth electric light 122 is incorporated in the transverse **array** with the lights 100, this one being positioned for alignment with the sprocket holes 94 of the tape 92. An **LDR** 124 is positioned on the opposite side of the tape for exposure to light emanating from the lamp or light 122 when the sprocket hole is in exposing position between the two. The connection of the **LDR** 124 is similar to that previously described, being across the base-collector of an NPN transistor 126 receiving bias from the. . .

=> d 1-10

1. 5,740,461, Apr. 14, 1998, Data processing with multiple instruction sets; David Vivian Jaggar, 395/800.41, 385, 386, 570 [IMAGE AVAILABLE]

2. 5,568,646, Oct. 22, 1996, Multiple instruction set mapping; David V. Jaggar, 395/385; 364/231.8, 237.9, 258, 259.9, DIG.1; 395/800.41 [IMAGE AVAILABLE]

3. 5,502,576, Mar. 26, 1996, Method and apparatus for the transmission, storage, and retrieval of documents in an electronic domain; Thomas E. Ramsay, et al., 358/444, 403, 404 [IMAGE AVAILABLE]

4. 5,105,186, Apr. 14, 1992, LCD touch screen; Gregory J. May, 345/175; 341/31; 345/84, 207 [IMAGE AVAILABLE]

5. 4,876,641, Oct. 24, 1989, Vlsi data processor containing an array of ICs, each of which is comprised primarily of an array of processing; Colin H. Cowley, 395/800.13; 364/228.3, 229.4, 231.9, 232.8, 238, 238.6, 238.7, 252, DIG.1; 395/800.15 [IMAGE AVAILABLE]

6. 4,696,558, Sep. 29, 1987, Focus condition detecting arrangement; Toshihiko Karasaki, et al., 396/104 [IMAGE AVAILABLE]

7. 4,523,140, Jun. 11, 1985, Precision current mirror arrays; Herbert A. Schneider, 323/315; 330/288 [IMAGE AVAILABLE]

8. 4,374,380, Feb. 15, 1983, Automotive electrical network voltage regulation monitoring circuit; Ulrich Giepen, et al., 340/660; 322/99; 340/635, 645, 653 [IMAGE AVAILABLE]

9. 4,310,879, Jan. 12, 1982, Parallel processor having central processor memory extension; Arun K. Pandeya, 395/800.32; 364/228.3, 231.9, 237.8, 243, 243.1, 244.8, 245, 245.31, 245.5, 245.8, 248.1, 258, 258.1, 258.2, 259, 259.2, 260, 260.2, 262, 262.1, 262.4, 262.7, 262.8, 264, 264.1, 265, 285, 285.3, DIG.1 [IMAGE AVAILABLE]

10. 3,683,332, Aug. 8, 1972, NUMBER COMPARING SYSTEM; Robert W. Steiger, et al., 340/146.2, 825.32 [IMAGE AVAILABLE]

=> s ligase detection assay#

```
          5420 LIGASE
        238659 DETECTION
         52521 ASSAY#
L2           0 LIGASE DETECTION ASSAY#
                 (LIGASE(W)DETECTION(W)ASSAY#)
```

=> s ligase chain reaction

```
          5420 LIGASE
        302581 CHAIN
        459627 REACTION
L3         417 LIGASE CHAIN REACTION
                 (LIGASE(W)CHAIN(W)REACTION)
```

=> s l13 and LDR

'L13' NOT FOUND

=> s l3 and LDR

472 LDR
L4 3 L3 AND LDR

=> d 1-3

1. 5,807,669, Sep. 15, 1998, Process for the detection of reverse transcriptase; Jorg Schupbach, et al., 435/4, 5, 6, 91.2; 536/23.1, 24.3 [IMAGE AVAILABLE]

2. 5,496,699, Mar. 5, 1996, Detection of allele - specific mutagens; George D. Sorenson, 435/6, 91.2; 536/24.33 [IMAGE AVAILABLE]

3. 5,494,810, Feb. 27, 1996, Thermostable ligase-mediated DNA amplifications system for the detection of genetic disease; Francis Barany, et al., 435/91.52, 4, 6, 91.2 [IMAGE AVAILABLE]

=> d 3 fro

US PAT NO: 5,494,810 [IMAGE AVAILABLE] L4: 3 of 3
DATE ISSUED: Feb. 27, 1996
TITLE: Thermostable ligase-mediated DNA amplifications system for the detection of genetic disease
INVENTOR: Francis Barany, New York, NY
John Zebala, New York, NY
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ASSIGNEE: Cornell Research Foundation, Inc., Ithaca, NY (U.S. corp.)
APPL-NO: 08/343,785
DATE FILED: Nov. 22, 1994
REL-US-DATA: Continuation of Ser. No. 971,095, Nov. 2, 1992, abandoned, which is a continuation-in-part of Ser. No. 518,447, May 3, 1990, abandoned.
INT-CL: [6] C12Q 1/68; C12Q 1/25; C12P 19/34
US-CL-ISSUED: 435/91.52, 4, 91.2, 6
US-CL-CURRENT: 435/91.52, 4, 6, 91.2
SEARCH-FLD: 435/6, 91.2, 91.52
REF-CITED:

U.S. PATENT DOCUMENTS

4,749,647	6/1988	Thomas et al.	435/5
4,889,818	12/1989	Gelfand et al.	435/194
4,988,617	1/1991	Landegren et al.	435/6
5,242,794	9/1993	Whiteley et al.	435/6

FOREIGN PATENT DOCUMENTS

0130515	6/1984	European Patent Office
0246864	5/1987	European Patent Office
0324616	1/1989	European Patent Office
0336731	4/1989	European Patent Office
0320308	6/1989	European Patent Office

OTHER PUBLICATIONS

Steven B. Zimmerman and Barbara H. Pheiffer; "Macromolecular crowding allows blunt-end ligation by DNA ligases from rat liver or Escherichia coli", Biochemistry, vol. 80, pp. 5852-5856, Oct. 1983.
Barany, F., "Genetic Disease Detection and DNA Amplification Using Cloned Thermostable Ligase," Proc. Natl. Acad. Sci. USA, 88:189-93 (1991).
F. Barany, et al. "Cloning, Overexpression and Nucleotide Sequence of a Thermostable DNA Ligase-Encoding Gene," Gene, 109:1-11 (1991).
M. Takahashi, et al., "Thermophilic HB8 DNA Ligase: Effects of Polyethylene Glycols and Polyamines on Blunt-End Ligation of DNA," J. Biochem., 100:123-31 (1986).
M. Takahashi et al, "Note--Purification of HB8 DNA Ligase by Red Sepharose Chromatography," Agric Biol. Chem., 50(5):1333-34 (1986).
G. Lauer, et al., "Cloning, Nucleotide Sequence, and Engineered Expression of Thermus Thermophilus DNA, a Homolog of Escherichia coli DNA Ligase," J. Bacteriology, 173(16):5047-53 (1991).
F. C. Lawyer, et al., "Isolation, Characterization, and Expression in Escherichia coli of the DNA Polymerase Gene from Thermus Aquaticus ," J. Bio. Chem., 264(11):6427-37 (1989).
H. Taguchi, et al., "A Chaperonin from a Thermophilic Bacterium, Thermus Thermophilus, That Controls Refoldings of Several Thermophilic Enzymes," J. Biol. Chem., 26 (33):22411-18 (1991).

H. Matsuzawa, et al., "Purification and Characterization of Aqualysin I (a Thermophilic Alkaline Serine Protease) Produced by Thermus Aquaticus YT-1", Eur. J. Biochem., 171:441-47 (1988).
K. Barringer, et al., "Blunt-End and Single-Strand Ligations by Escherichia coli Ligase: Influence on an in vitro Amplification Scheme," Gene, 89:117-22 (1990).
E. S. Winn-Deen, et al., "Sensitive Fluorescence Method for Detecting DNA Ligation Amplification Products," Clinical Chemistry, 37(9):1522-23 (1991).
U. Landegren, et al., "A Ligase-Mediated Gene Detection Technique," Science, 241:1077-80 (1988).
L. G. Birkenmeyer, et al., "Mini-Review--DNA Probe Amplification Methods," J. Virol. Methods, 35:117-26 (1991).
F. Barany, "The Ligase Chain Reaction in a PCR World," PCR Methods and Applications, vol. 1 pp. 5-16 (1991).
R. Weiss, "Hot Prospect for New Gene Amplifier," Science, 254:1292-3 (1991).
Cotton, Biochem J. 263:1-10 (1989).
Holding et al., Lancet 2 (8662):532-535 (1989).
Wu, D. Y. et al.; Genomics 4:560-569 (1989).
Takahashi, M. et al.; J. Biol. Chem. 259:10041-10047 (1984).
ART-UNIT: 184
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LEGAL-REP: Nixon, Hargrave, Devans & Doyle

ABSTRACT:
The present invention relates to the cloning of the gene of a thermophilic DNA ligase, from Thermus aquaticus strain HB8, and the use of this ligase in a **ligase chain reaction** (LCR) assay for the detection of specific sequences of nucleotides in a variety of nucleic acid samples, and more particularly in those samples containing a DNA sequence characterized by a difference in the nucleic acid sequence from a standard sequence including single nucleic acid base pair changes, deletions, insertions or translocations.
4 Claims, 9 Drawing Figures

=> d 3 hit

US PAT NO: 5,494,810 [IMAGE AVAILABLE] L4: 3 of 3

ABSTRACT:
The present invention relates to the cloning of the gene of a thermophilic DNA ligase, from Thermus aquaticus strain HB8, and the use of this ligase in a **ligase chain reaction** (LCR) assay for the detection of specific sequences of nucleotides in a variety of nucleic acid samples, and more particularly in those samples containing a DNA sequence characterized by a difference in the nucleic acid sequence from a standard sequence including single nucleic acid base pair changes, deletions, insertions or translocations.

SUMMARY:

BSUM(3)

Although it is not always necessary, the detection of single base pair mutations in DNA is usually preceded by techniques to increase or amplify the amount of DNA sample material. A number of techniques exist to perform nucleic acid amplification, among which are: (1) polymerase chain reaction which can amplify DNA a million fold from a single copy in a matter of hours using Taq polymerase and running 20 to 30 reaction cycles on a temperature cycling instrument [see Science 239:487 (1988), and U.S. Pat. Nos. 4,683,195, 4,683,202, and 4,800,159]; (2) self-sustained sequence replication or 3SR can amplify DNA or RNA 10 million fold from a single copy in less than an hour using reverse transcriptase, T7 RNA polymerase, and RNase H under isothermal conditions at 37.degree. C. [see Proc. Natl. Acad. Sci. USA 87:1874 (1990)]; and (3) Q Beta Replicase can replicate a few thousand RNA molecules confining a special 300 bp recognition sequence a billion fold in 30 minutes. Additional techniques are available, and one, the **ligase chain reaction**, is discussed in the following description of the cloned thermophilic ligase according to the present invention.

SUMMARY:

BSUM(5)

Although techniques such as these are available, the search for other techniques for determining single base pair mutations continues. The present invention, that is DNA amplification and/or detection by a ligase detection reaction (LDR) or **ligase chain reaction** (LCR) utilizing the thermophilic DNA ligase from Thermus aquaticus to detect a target DNA sequence is part of that continuing effort.

SUMMARY:

BSUM(6)

Although other techniques utilizing E. coli or T4 DNA ligase for DNA amplification have been attempted, these have been found to be unacceptable because of a high background "noise" levels (after as few as 10 cycles), a condition which does not exist in the **ligase chain reaction** according to the present invention.

SUMMARY:

BSUM(7)

DNA amplification and/or detection has also been attempted utilizing specific ligases. For example, a ligase amplification reaction has been reported [see Gene 76:245 (1989)] that can amplify DNA starting with 500,000 copies in 95 hours, using 75 cycles and replenishing the T4 DNA ligase used after each cycle. However, this reported technique is slow and requires the addition of fresh T4 ligase at each step, both of which requirements make this reported technique unacceptable for automation. The **ligase chain reaction** according to the present invention allows for amplification of DNA from 200 copies in 3 hours using 30 cycles and does not require the addition of ligase following each cycle.

SUMMARY:

BSUM(9)

"Amplification" refers to the increase in the number of copies of a particular nucleic acid fragment resulting either from an enzymatic chain reaction (such as a polymerase chain reaction, a **ligase chain reaction**, or a self-sustained sequence replication). or from the replication of the vector into which it has been cloned.

SUMMARY:

BSUM(27)

"**Ligase Chain Reaction** (LCR)" refers to the amplification of a oligonucleotide ligation product. For example, if oligonucleotides are designed such that the DNA products of one cycle can become the DNA substrates of the next cycle, repeating such cycles will cause an exponential amplification of the DNA (a "chain reaction"). As a thermophilic ligase enzyme is capable of remaining active during many DNA melting and cooling cycles, this allows a DNA amplification to occur rapidly and automatically in a single reaction vessel subject to many thermal cycles in which the oligonucleotide ligation product is amplified.

SUMMARY:

BSUM(28)

"Ligase detection reaction (**LDR**)" refers to the use of two adjacent oligonucleotides for the detection of specific sequences with the aid of a thermophilic ligase with linear product amplification.

DRAWING DESC:

DRWD(3)

FIG. 2 is a flow chart of the **Ligase Chain Reaction** (LCR) according to the present invention;

DRAWING DESC:

DRWD(4)

FIG. 3 is an autoradiogram demonstrating the specificity of T. aquaticus thermophilic ligase under both **LDR** and LCR amplification conditions

according to the present invention;

DETDESC:

DETD(95)

In the simpler of the two procedures developed as a result of cloning the thermophilic ligase DNA sequence, termed a ligase detection reaction (LDR), two oligonucleotide probes are allowed to hybridize to denatured DNA such that the 3' end of one is immediately adjacent to the 5' end of the other. The oligonucleotides are chosen to be sufficiently long (20 to 25 nucleotides) such that each will preferentially hybridize to its unique position in the human genome. A thermophilic ligase can then form a covalent phosphodiester bond between the two oligonucleotides, provided that the nucleotides at the junction are perfectly complementary to the target. The specificity of this nick-closing reaction is particularly enhanced by virtue of performing the ligation at or near the T.sub.m of the two oligonucleotides for their target. Thus, a single base mismatch at the junction not only forms an imperfect double helix, but also destabilizes the hybrid at the higher temperature. Consequently, thermophilic ligase will efficiently link correctly base paired oligonucleotides and give near zero background ligation in the presence of the imperfectly matched sequences. Using LDR, the amount of product obtained in the ligation reaction can be increased in a linear fashion by repeated thermal cycling.

DETDESC:

DETD(96)

In the thermophilic **ligase chain reaction** according to the present invention, both strands serve as targets for oligonucleotide hybridization. By using an additional two oligonucleotides complementary to the opposite strand, the ligation products of one cycle become the targets for the next cycle of ligation as generally depicted in FIG. 2. For each adjacent oligonucleotide pair, the diagnostic nucleotide is on the 3' side of the junction. Thus, aberrant target independent ligation of complementary oligonucleotides is avoided by use of temperatures near the T.sub.m, and by taking advantage of the poor ligation efficiency of single base 3' overhangs. Using **ligase chain reaction**, the amount of product can be increased in an exponential fashion by repeated thermal cycling.

DETDESC:

DETD(97)

In order to test the potential of the thermophilic **ligase chain reaction** (LCR), the gene encoding human .beta. globin was selected as an initial model system to test the technique of the present invention. Previous work has determined that the normal .beta..sup.A allele and sickle .beta..sup.S allele differ by a single A.fwdarw.T transversion of the second nucleotide in the sixth codon of the .beta. globin gene, changing a glutamic acid residue into a valine in the hemoglobin .beta. chain according to the following Table I:

DETDESC:

DETD(107)

The specificity of the T. aquaticus thermophilic ligase according to the present invention for complementary vs. mismatched target was compared under both LDR and LCR conditions (see FIG. 3 and the following Table II). In the LDR series, two adjacent oligonucleotides were incubated with denatured target DNA and ligase, where the last nucleotide of the unlabelled oligonucleotide was either complemented or mismatched the target DNA. The oligonucleotides were designed with slightly different length tails to facilitate discrimination of various products by allowing them to be separated on a denaturing gel. Consequently, as disclosed earlier, ligation of oligonucleotide 101 (.beta..sup.A allele), 102 (.beta..sup.S allele), or 103 to labelled 107 gives lengths of 45, 47 or 49 nucleotides, respectively. For the complementary strand, ligation of oligonucleotides 104 (.beta..sup.A allele), 105 (.beta..sup.S allele), or 106 to labelled 109 gives lengths of 46, 48 or 50 nucleotides, respectively. The oligonucleotides were also designed to have a calculated T.sub.m values of 66.degree. C. to 70.degree. C., that is just at or slightly above the ligation temperature. Thus, the specificity of ligating two oligonucleotides hybridized to target DNA with perfect

complementarity (A:T) could be directly compared to each possible mismatch (A:A, T:T, G:A, G:T, C:A, or C:T). The methodology for determining specificity of ligation of these oligonucleotides in the presence of .beta..sup.A or .beta..sup.S globin gene target was determined as in the following example:

DETDESC:

DETD(113)

TABLE II

Quantitation of complementary and mismatched LDR and LCR bands from 20 cycle LDR and 30 cycle LCR experiments described in Example IX and depicted in FIG. 3 were excised from gels and assayed for radioactivity. Percentage product formed = cpm in product band/cpm in starting oligonucleotide band. Percentage mismatched/complementary = cpm in band of mismatched oligonucleotides/cpm in band of complementary oligonucleotide using the same target DNA, and gives an indication of the noise to signal ratio. LDR amplification was performed using 6 .times. 10.sup.8 target molecules or 1 femtomole; LCR amplification was performed using 6 .times. 10.sup.6 target molecules or 10 attomoles.

Oligo base: target base		Product formed (%)	mismatched/ complementary (%)
LDR	A:T	21.5	
	T:A	13.2	
	T:A	17.9	
	A:T	12.4	
	A:A	<0.1	<0.4
	T:T	0.12	0.7
	T:T	0.16	1.0
	A:A	<0.1	<0.4
	G:T	0.30	1.4
	C:T	<0.1	<0.4
	G:A	<0.1	<0.4
	C:A	<0.1	<0.4
LCR	A:T, T:A	41.4	
	T:A, A:T	10.4	
	A:A, T:T	0.45	1.1
	T:T, A:A	<0.05	<0.2
	G:T, C:A	0.51	1.3
	G:A, C:T	<0.05	<0.2

DETDESC:

DETD(114)

Thus, the thermophilic T. aquaticus ligase was shown to discriminate complementary from mismatched oligonucleotide sequences for all possible mismatched base pairs in LDR assays. Under both competition and ;individual ligation experiments (at varying salt concentrations), the worst case mismatch ligations were 1.5 to 1.0% (see Table II, G:T and T:T), while others were 0.4% to <0.1% (see Table II, A:A, C:T, G:A and C:A) of the products formed with complementary base pairs (A:T). This is substantially better than reported (using radioactive detection) for the mesophilic T4 ligase of E. coil [see Gene 76:245 (1989)].

DETDESC:

DETD(115)

In the LCR amplification/detection series of experiments, two adjacent oligonucleotides were incubated with denatured target DNA and ligase, as well as with the complementary set of oligonucleotides. Under these conditions, the 3' nucleotide of the unlabelled diagnostic oligonucleotide either complemented or mismatched the target DNA, but always complemented its unlabelled counterpart, i.e. A:T for 101 and 104, T:A for 102 and 105, and G:C for 103 and 106. Thus, an initial "incorrect" ligation of a mismatched oligonucleotide would subsequently be amplified with the same efficiency as a correct ligation. Samples contained pairs of unlabelled oligonucleotides (.beta..sup.A allele specific 101 and 104, .beta..sup.S allele specific 102 and 105, or 103 and 106) with the complementary and adjacent pairs of labelled

oligonucleotides, 107 and 109. These labelled and unlabelled oligonucleotides were incubated in the presence of ligase and 10 attomoles of target DNA (100 fold less target DNA than for LDR) for 20 or 30 cycles as in Example IX. The resulting bands are depicted in the left portion of FIG. 3 and the lower half of Table II.

DETDESC:

DETD(117)

When the entire set of :experiments described above were repeated using buffer containing 150 mM instead of 100 mM KCl, the results were essentially the same as in FIG. 3 and tabulated in Table II, with ligation of mismatch oligonucleotides for LDR ranging from 0.6% to <0.3% and for LCR ranging from 1.7% to <0.3% of the exactly complementary products. Thus, the exquisite discrimination between matched and mismatched oligonucleotides appears not to be critically dependent upon salt conditions.

DETDESC:

DETD(118)

Alternatively, a different procedure based on phosphatase may also be used. The LCR or LDR reaction may be performed in a 10 .mu.l volume under mineral oil. To this is added 50 .mu.l of 10 mM Tris HCl pH 7.6 containing 0.5 units of Bacterial Alkaline Phosphatase (BAP), and 10 mM MgCl.sub.2, and the incubation continued at 65.degree. C. for 2 hrs (note that the ligase enzyme is not killed under these conditions). The 5' end label on an oligonucleotide that has become covalently linked is no longer susceptible to BAP. Ligated product is separated from monophosphate by the addition of 20 .mu.l of 10 mg/ml sonicated salmon sperm DNA as a carrier and precipitated with 20 .mu.l of 50% TCA. After centrifugation for 5 min at 12,000 rpm, the supernatant is removed, and the ration of pellet to pellet+supernatant gives the percentage of product formed. A similar assay has been used with Taq I endonuclease, and the experimental error for positive and negative controls is around 1-2%.

DETDESC:

DETD(120)

TABLE III

Quantitation of complementary and mismatched LDR and LCR bands, at 100 and 150 mM KCl concentrations, from 20 cycle LDR and 30 cycle LCR experiments described in Example IX and depicted in FIG. 3. LDR amplification was performed using 6 .times. 10.sup.8 target molecules or 1 femtomole; LCR amplification was performed using 6 .times. 10.sup.6 target molecules or 10 attomoles. The mismatched/complementary gives an indication of the noise to signal ratio.

		Product formed (%) [KCl] (mM)		mismatched/ complementary (%) [KCl] (mM)	
Oligo base:		100	150	100	150
target base					
LDR	A:T	21.5	23.2		
	T:A	13.2	17.2		
	T:A	17.9	12.8		
	A:T	12.4	11.7		
	A:A	<0.1	<0.2	<0.4	<0.3
	T:T	0.12	0.21	0.7	0.3
	T:T	0.16	0.30	1.0	0.6
	A:A	<0.1	<0.2	<0.4	<0.3
	G:T	0.30	0.25	1.4	0.4
	C:T	<0.1	<0.2	<0.4	<0.3
	G:A	<0.1	0.25	<0.4	0.4
	C:A	< 0.1	0.20	<0.4	0.3
LCR	A:T, T:A	41.4	14.2		
	T:A, A:T	10.4	18.5		
	A:A, T:T	0.45	0.09	1.1	0.6
	T:T, A:A	<0.05	<0.05	<0.2	0.3
	G:T, C:A	0.51	0.24	1.3	1.7
	G:A, C:T	<0.05	<0.1	<0.2	<0.7

DETDESC:

DETD(121)

LCR and LDR specificity was tested using both .beta..sup.A and .beta..sup.S specific oligonucleotides in direct competition for ligation to the invarient labelled oligonucleotides. Using target DNA (.beta..sup.A, .beta..sup.S, and an equimolar ratio of .beta..sup.A and .beta..sup.S) ranging from 1 femtomole to 1 attomole, thermophilic ligase specifically formed the correct product(s) in each case; no background incorrect ligation product was observed when only one target allele was present). However, the efficiency of forming the .beta..sup.S specific products is somewhat less than forming the .beta..sup.A products, and after 20 cycles of amplification, the .beta..sup.S specific products were approximately one-third of the .beta..sup.A specific products as quantitated by assaying excised products for radioactivity. Hence a direct competition assay, wherein two oligonucleotides are differentially labelled (for example with fluorescent groups) to quantitate the relative initial concentrations of each target sequence allele will require careful titrations for each allele.

DETDESC:

DETD(136)

The efficiency per cycle could, of course, be potentially enhanced by altering buffer conditions, enzyme concentration, or thermal cycling times and temperatures--all within the capabilities of those skilled in the art. It has, for example, been shown that the ligation efficiency of thermophilic ligase (and other ligases) may be enhanced by altering buffer compositions, such as using NH.sub.4 Cl, HEPES, polyamines such as spermidine, or polyethylene glycols [see J. Biol. Chem 259:10041 (1984), and J. Biochem. 100:123 (1986)]. Varying the amounts of each component in the currently used buffer and either supplementing or exchanging one or more components with, but not limited to, the chemical and biological components listed above, are among the methods of improving LCR that are straight forward for those skilled in the art. One skilled in the art can also easily vary the cycling times and temperatures. For example, at later time points, the majority of target present is oligonucleotide product from a previous LCR reaction. These oligonucleotides are short (preferably but not limited to 40-60 mers) and may melt more rapidly, allowing more rapid cycling. In the present invention, successful ligase chain reactions have been completed for 30 and 40 cycles under cycling conditions of 94.degree. C. for 0.5 minutes followed by 65.degree. C. for 2 minutes (half the time of the 1 minute at 94.degree. C. and 4 minutes at 65.degree. C. cycle time for the preferred ligase chain reaction conditions). Both the ligation temperature and the DNA denaturing temperatures may be varied with respect to actual degree, duration, and number of repeated cycles. Optimal conditions must maximize the amount of product formed in the presence of perfectly complementary target DNA, while minimizing the amount of incorrect product formed in the presence of mismatched target DNA or in the absence of complementary target DNA.

```
### Status: Path 1 of [Dialog Information Services via Modem]

### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID
pto-dialog)
Trying 3106900061...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ******** HHHHHHHH SSSSSSSS?
### Status: Signing onto Dialog
 ********
ENTER PASSWORD:
 ******** HHHHHHHH SSSSSSSS? ********
Welcome to DIALOG
### Status: Connected


Dialog level 00.06.30D

Last logoff: 19jul00 14:07:06
Logon file001 24jul00 13:48:41
*** ANNOUNCEMENT ***
NEW FILE RELEASED
***Prous Science Daily Essentials (Files 458, 459)
***WIPO/PCT Patents Fulltext (File 349)

UPDATING RESUMED
***GPO Monthly Catalog (File 66)
***Bridge World Markets News (File 609,809)
***Fort Worth Star-Telegram (File 427)
***Federal News Service (File 660)
***Kansas City Star (File 147)
***British Books in Print (File 430)

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RELOADED
***Kompass Canada (File 594)
***Books in Print (File 470)
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   >>>   of new databases, price changes, etc.     <<<
            ****
***                          ***

File   1:ERIC  1966-2000/Jul 22
     (c) format only 2000 The Dialog Corporation

    Set  Items  Description
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?s primer? ? (5n) portion  and arra???
        1159  PRIMER? ?
        4610  PORTION
           0  PRIMER? ?(5N)PORTION
        2275  ARRA???
     S1     0  PRIMER? ? (5N) PORTION  AND ARRA???
?begin 411
     24jul00 13:50:13 User233832 Session D245.1
        $0.46   0.132 DialUnits File1
    $0.46  Estimated cost File1
    $0.10  TYMNET
    $0.56  Estimated cost this search
    $0.56  Estimated total session cost   0.132 DialUnits

File 411:DIALINDEX(R)

DIALINDEX(R)
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*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
?set files allchem allmed
   You have 201 files in your file list.
   (To see banners, use SHOW FILES command)
?C?s primer? ? (5n) portion  and arra??? and py<1996
>>>"C" command not valid in DIALINDEX.
??s primer? ? (5n) portion  and arra??? and py<1996
>>>Help is not available for SPRIMER?
??s  primer? ? (5n) portion  and arra??? and py<1996
>>>Help is not available for SPRIMER?
?begin 411
     24jul00 13:52:28 User233832 Session D245.2
        $0.21   0.171 DialUnits File411
    $0.21  Estimated cost File411
    $0.15  TYMNET
    $0.36  Estimated cost this search
    $0.92  Estimated total session cost   0.302 DialUnits

File 411:DIALINDEX(R)

DIALINDEX(R)
  (c) 2000 The Dialog Corporation plc

*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
?set files allchem allmed
   You have 201 files in your file list.
   (To see banners, use SHOW FILES command)
?s  primer? ? (5n) portion  and arra??? and py<1996

Your SELECT statement is:
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s primer? ? (5n) portion  and arra??? and py<1996

      Items  File
      -----  ----
   Examined  50 files
        3  340: CLAIMS(R)/US Patent_1950-00/Jul 14
       14  348: European Patents_1978-2000/Jun W04
       34  349: PCT Fulltext_1983-2000/UB=, UT=20000629
       20  652: US Patents Fulltext_1971-1979
       20  653: US Pat.Fulltext_1980-1989
       11  654: US Pat.Full._1990-2000/Jul 18
        1   88: Gale Group Business A.R.T.S._1976-2000/Jul 24
   Examined 100 files
        1  149: TGG Health&Wellness DB(SM)_1976-2000/Jul W3
        1  180: Federal Register_1985-2000/Jul 21
   Examined 150 files
   Examined 200 files

  9 files have one or more items; file list includes 201 files.
  One or more terms were invalid in 38 files.

?save temp portion
>>>You must limit names to 1-6 characters when saving
>>>a DIALOG search.
?begin 88 1 340 348 349
    24jul00 13:57:12 User233832 Session D245.3
      $6.66   5.332 DialUnits File411
   $6.66  Estimated cost File411
   $0.25  TYMNET
   $6.91  Estimated cost this search
   $7.83  Estimated total session cost   5.634 DialUnits


SYSTEM:OS  - DIALOG OneSearch
 File  88:Gale Group Business A.R.T.S.  1976-2000/Jul 24
      (c) 2000 The Gale Group
 File   1:ERIC  1966-2000/Jul 22
      (c) format only 2000 The Dialog Corporation
 File 340:CLAIMS(R)/US Patent  1950-00/Jul 14
      (c) 2000 IFI/CLAIMS(r)
 File 348:European Patents  1978-2000/Jun W04
      (c) 2000 European Patent Office
*File 348: ** NEW FEATURE ** English language translations of
French
and German abstracts now searchable.  See HELP NEWS 348 for info.
 File 349:PCT Fulltext  1983-2000/UB=, UT=20000629
      (c) 2000 WIPO/MicroPatent

    Set  Items  Description
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?exs
>>>Nothing was SAVEd during this session. You must specify the
name and/or
  serial number of a previously saved SearchSave, e.g. EXS SA001.
?rd
>>>No sets currently exist.
? s primer? ? (5n) portion  and arra??? and py<1996
Processing
       51765  PRIMER? ?
     1508544  PORTION
        1855  PRIMER? ?(5N)PORTION
      263861  ARRA???
     7149675  PY<1996
   S1     52  PRIMER? ? (5N) PORTION  AND ARRA??? AND
PY<1996
?rd
>>>Duplicate detection is not supported for File 340.
>>>Duplicate detection is not supported for File 348.
>>>Duplicate detection is not supported for File 349.

>>>Records from unsupported files will be retained in the RD set.
...examined 50 records  (50)
...completed examining records
   S2     52  RD (unique items)
?t s2/free/1-52

 2/8/1     (Item 1 from file: 88)
01810873    SUPPLIER NUMBER: 04518230    (USE FORMAT 7
OR 9 FOR FULL TEXT)
A genetic approach to promoter recognition during trans induction of
viral
 gene expression.
Oct 3, 1986
WORD COUNT:   5509   LINE COUNT:  00566


 2/8/2     (Item 1 from file: 340)
3232166  9938545
C/METHOD OF DETECTING AND DISCRIMINATING
BETWEEN NUCLEIC ACID SEQUENCES;
  ALLELE PRIMER COMPLEMENTARY TO A TARGET DNA
SEQUENCE AND IMMOBILIZED TO
  A SOLID SUPPORT; TOOL FOR DIAGNOSIS AND GENETIC
ANALYSIS; DETECTION OF
  GENETIC DISORDERS SUCH AS SICKLE CELL ANEMIA AND
THALASEMIA


 2/8/3     (Item 2 from file: 340)
1226725  1929388
M/SINGLE LEAD ELECTRICALLY-ACTIVATED FLASHLAMP


 2/8/4     (Item 3 from file: 340)
1167931  1834835
M/FLASHLAMP ASSEMBLY UTILIZING DISPOSABLE
FLASHLAMP ARTICLE


 2/8/5     (Item 1 from file: 348)
```

00798303
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
INSECTICIDAL TOXINS FROM THE PARASITIC WASP BRACON HEBETOR
Insektentotende Toxine von der parasitischen Wespe Bracon Hebetor
TOXINES INSECTICIDES DE LA GUEPE PARASITE BRACON HEBETOR
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9929 196
CLAIMS B (German) 9929 190
CLAIMS B (French) 9929 218
SPEC B (English) 9929 4862
Total word count - document A 0
Total word count - document B 5466
Total word count - documents A + B 5466

2/8/6 (Item 2 from file: 348)
00727441
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Apparatus and method for determining the concentration of the target
nucleic acid in PCR
Gerat und Verfahren zur Bestimmung der Konzentration der Zielnukleinsaure
in PCR
Appareil et procede pour determiner la concentration de l'acide nucleique
de but dans le PCR
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPAB95 3928
SPEC A (English) EPAB95 9315
Total word count - document A 13243
Total word count - document B 0
Total word count - documents A + B 13243

2/8/7 (Item 3 from file: 348)
00711436
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Method of forming a resinous member on a glass-plate
Verfahren zum Formen eines Elementes aus Kunststoff auf einer Glasplatte
Procede de moulage d'un element resineux sur une plaque en verre
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9904 875
CLAIMS B (German) 9904 891
CLAIMS B (French) 9904 1038
SPEC B (English) 9904 5602
Total word count - document A 0
Total word count - document B 8406
Total word count - documents A + B 8406

2/8/8 (Item 4 from file: 348)
00655901
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
DNA analyzing method.
DNS-Analyse Verfahren.
Procede d'analyse d'ADN.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF2 731
SPEC A (English) EPABF2 6582
Total word count - document A 7313
Total word count - document B 0
Total word count - documents A + B 7313

2/8/9 (Item 5 from file: 348)
00573624
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Improved microsensor and method of manufacture.
Verbesserter Mikrosensor und Verfahren zur Herstellung.
Micro-capteur ameliore et procede de fabrication.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 1071
SPEC A (English) EPABF1 3203
Total word count - document A 4274
Total word count - document B 0
Total word count - documents A + B 4274

2/8/10 (Item 6 from file: 348)
00543284
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Method of characterising genomic DNA
Verfahren zur Charakterisierung genomischer DNA
Procede pour la caracterisation de l'ADN genomique
LANGUAGE (Publication,Procedural,Application): English; English;

English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9902 540
CLAIMS B (German) 9902 455
CLAIMS B (French) 9902 563
SPEC B (English) 9902 27693
Total word count - document A 0
Total word count - document B 29251
Total word count - documents A + B 29251

2/8/11 (Item 7 from file: 348)
00540867
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Nucleotide sequences
Nucleotidsequenzen
Sequences de nucleotides
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9806 529
CLAIMS B (German) 9806 516
CLAIMS B (French) 9806 554
SPEC B (English) 9806 14707
Total word count - document A 0
Total word count - document B 16306
Total word count - documents A + B 16306

2/8/12 (Item 8 from file: 348)
00508695
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
production and use of transgenic non-human animals capable of producing
heterologous antibodies
Produktion und Nutzung nicht-menschliche transgentiere zur Produktion
heterologe Antikorper
production et utilisation des animaux non humains transgeniques capable de
produire des anticorps heterologues
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9709W1 341
CLAIMS B (German) 9709W1 358
CLAIMS B (French) 9709W1 427
SPEC B (English) 9709W1 30591
Total word count - document A 0
Total word count - document B 31717
Total word count - documents A + B 31717

2/8/13 (Item 9 from file: 348)
00506490
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
GENOMIC MAPPING METHOD BY DIRECT HAPLOTYPING USING INTRON SEQUENCE ANALYSIS
GENOMISCHE GENKARTIERUNGSMETHODE DURCH DIREKTEN NACHWEIS VON HAPLOTYPEN
MITTELS INTRONSEQUENZANALYSE
PROCEDE DE CARTOGRAPHIE GENOMIQUE PAR IDENTIFICATION DIRECTE D'HAPLOTYPES
PAR L'ANALYSE DE SEQUENCES D'INTRONS
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9940 929
CLAIMS B (German) 9940 911
CLAIMS B (French) 9940 1001
SPEC B (English) 9940 17187
Total word count - document A 0
Total word count - document B 20028
Total word count - documents A + B 20028

2/8/14 (Item 10 from file: 348)
00488730
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Optical fiber PH microsensor and method of manufacture.
PH-optischer Fasermikrosensor und Verfahren zur Herstellung.
Microcapteur de PH a fibre optique et procede de fabrication.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 717
SPEC A (English) EPABF1 2342
Total word count - document A 3059
Total word count - document B 0
Total word count - documents A + B 3059

2/8/15 (Item 11 from file: 348)
00486504
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Optical fiber sensor and method of manufacture.
Optischer Fasersensor und Herstellungsverfahren.
Senseur a fibre optique et procede de fabrication.
LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 538
SPEC A (English) EPABF1 2054
Total word count - document A 2592
Total word count - document B 0
Total word count - documents A + B 2592

2/8/16 (Item 12 from file: 348)
00467154
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Primers and probes for nucleic acid detection.
Primers und Sonden zum Nachweis von Nukleinsauren.
"Primers" et sondes pour detecter des acides nucleiques.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 402
SPEC A (English) EPABF1 10821
Total word count - document A 11223
Total word count - document B 0
Total word count - documents A + B 11223

2/8/17 (Item 13 from file: 348)
00451942
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
NEUROTROPHIN-3, A NOVEL NEUROTROPHIC FACTOR RELATED TO NERVE GROWTH FACTOR
AND BRAIN DERIVED NEUROTROPHIC FACTOR
NEUROTROPHIN-3, EIN NEUER NEUROTROPISCHER FAKTOR VERWANDT MIT DEM
NERVENWACHSTUMSFAKTOR UND VOM GEHIRN STAMMENDER NEUROTROPISCHER FAKTOR
NEUROTROPHINE-3, UN NOUVEAU FACTEUR NEUROTROPHIQUE RELATIF A LA CROISSANCE
DES NERFS ET FACTEUR NEUROTROPHIQUE DERIVE DU CERVEAU
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) EPAB97 1939
CLAIMS B (German) EPAB97 1995
CLAIMS B (French) EPAB97 2314
SPEC B (English) EPAB97 21129
Total word count - document A 0
Total word count - document B 27377
Total word count - documents A + B 27377

2/8/18 (Item 14 from file: 348)
00302442
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
A modified gamma interferon dna sequences encoding it and process for
producing it.
Modifiziertes Gamma-Interferon, DNS-Sequenzen, die dieses kodieren, sowie
Verfahren zu dessen Herstellung.
Interferon gamma modifie, sequences d'ADN codant pour celui-ci et ses
procedes de production.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 731
SPEC A (English) EPABF1 5441
Total word count - document A 6172
Total word count - document B 0
Total word count - documents A + B 6172

2/8/19 (Item 1 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00403449
POLYCYSTIC KIDNEY DISEASE 1 GENE AND USES THEREOF
GENE 1 DE LA POLYKYSTOSE RENALE ET UTILISATIONS DUDIT GENE
Main International Patent Class: C12N-015/12;
International Patent Class: C07K-014/47; C12N-005/10; A61K-048/00;
G01N-033/68; C12Q-001/68; C07K-016/18;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 24038

2/8/20 (Item 2 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00400748
HEPATITIS G VIRUS AND MOLECULAR CLONING THEREOF
VIRUS DE L'HEPATITE G ET SON CLONAGE MOLECULAIRE
Main International Patent Class: C12N-015/40;
International Patent Class: C07K-014/18; A61K-039/29; G01N-033/576;
C12Q-001/68; C12Q-001/70;
Publication Language: English
Fulltext Availability:
Detailed Description

Claims
Fulltext Word Count: 102273

2/8/21 (Item 3 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00400201
NOVEL ENZYMATIC RNA MOLECULES
NOUVELLES MOLECULES ENZYMATIQUES D'ARN
Main International Patent Class: C12N-015/52;
International Patent Class: C12N-009/00; A61K-031/70;
C12Q-001/68;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 53276

2/8/22 (Item 4 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00394153
CARTRIDGE WITH A PLURALITY OF PRIMER CHARGES DISPENSED AROUND THE
LONGITUDINAL AXIS OF THE CARTRIDGE
CARTOUCHE CHARGEE D'UNE PLURALITE D'AMORCES REPARTIES AUTOUR DE SON AXE
LONGITUDINAL
Main International Patent Class: F42B-005/045;
International Patent Class: F42C-019/08;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 3477

2/8/23 (Item 5 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00390692
FK-506 CYTOSOLIC BINDING PROTEIN
PROTEINE CYTOSOLIQUE SE FIXANT SUR LE FK-506
Main International Patent Class: C07K-014/47;
International Patent Class: C07K-017/00; C07K-016/18;
C07K-016/40;
C12N-015/12; C12N-015/61; C12N-015/64; C12N-005/10;
C12N-001/19;
C12N-001/21; G01N-033/566;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 16976

2/8/24 (Item 6 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00381205
IN VITRO PEPTIDE AND ANTIBODY DISPLAY LIBRARIES
BANQUES DE PRESENTATION DE PEPTIDES ET D'ANTICORPS IN VITRO
Main International Patent Class: C07K-016/00;
International Patent Class: C12P-021/08;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 27590

2/8/25 (Item 7 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00376263
INTRON-MEDIATED RECOMBINANT TECHNIQUES AND REAGENTS
TECHNIQUES ET REACTIFS DE RECOMBINAISON PAR INTRONS
Main International Patent Class: C12N-015/10;
International Patent Class: C12N-015/11; C12N-015/12;
C12N-015/31;
C12P-021/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 26716

2/8/26 (Item 8 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00375853
A METHOD OF NUCLEIC ACID SEQUENCING
PROCEDE DE SEQUENCAGE D'ACIDES NUCLEIQUES
Main International Patent Class: C12Q-001/68;
International Patent Class: C12P-019/34;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 14710

2/8/27 (Item 9 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00373128
MARKERS FOR DETECTION OF CHROMOSOME 16 REARRANGEMENTS
MARQUEURS UTILISES POUR LA DETECTION DE REARRANGEMENT DU CHROMOSOME 16
Main International Patent Class: C07H-021/02;
International Patent Class: C07H-021/04; C12Q-001/70; C12P-019/34;
G01N-033/53; C07K-015/26; C07K-015/28;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 20901

2/8/28 (Item 10 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00356864
AMPLIFIED DNA FINGERPRINTING METHOD FOR DETECTING GENOMIC VARIATION
PROCEDE D'ANALYSE D'EMPREINTE D'ADN AMPLIFIE PERMETTANT DE DETECTER LES VARIATIONS DU GENOME
Main International Patent Class: C12Q-001/68;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 4427

2/8/29 (Item 11 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00355261
NF-ATp, A T LYMPHOCYTE DNA-BINDING PROTEIN
PROTEINE DE LIAISON D'ADN DE LYMPHOCYTE T ACTIVE, NF-ATp
Main International Patent Class: C07K-013/00;
International Patent Class: C07K-015/28; C12N-001/21; C12N-005/10;
C12N-015/10; C12N-015/11; C12N-015/19; C12N-015/64; C12Q-001/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 20756

2/8/30 (Item 12 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00351058
OLIGOPROBE DESIGNSTATIONS: A COMPUTERIZED METHOD FOR DESIGNING OPTIMAL OLIGONUCLEOTIDE PROBES AND PRIMERS
POSTE DE CONCEPTION D'OLIGOSONDE: PROCEDE INFORMATISE DE CONCEPTION D'AMORCES ET DE SONDES OLIGONUCLEOTIDIQUES OPTIMALES
Main International Patent Class: G06F-015/42;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 21359

2/8/31 (Item 13 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00350845
IDENTIFICATION OF NEOPLASMS BY DETECTION OF GENETIC INSERTIONS AND DELETIONS
IDENTIFICATION DE NEOPLASMES PAR DETECTION DES INSERTIONS ET DELETIONS GENETIQUES
Main International Patent Class: C12Q-001/68;
International Patent Class: C07H-021/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 14771

2/8/32 (Item 14 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00350844
POSITIONAL SEQUENCING BY HYBRIDIZATION
SEQUENCAGE PAR HYBRIDATION POSITIONNELLE
Main International Patent Class: C12Q-001/68;
International Patent Class: C12P-019/34; C07H-021/04; G01N-033/48;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 23167

2/8/33 (Item 15 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00342248

GENE DETECTION SYSTEM
SYSTEME DE DETECTION DE GENE
Main International Patent Class: C12Q-001/68;
International Patent Class: C12P-019/34; C07H-021/04;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 45131

2/8/34 (Item 16 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00341016
SHOCK PULSE COUPLING ARRANGEMENT
DISPOSITIF DE COUPLAGE D'ONDE DE CHOC
Main International Patent Class: F42D-001/04;
International Patent Class: B60R-021/26; F42B-003/22;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 3432

2/8/35 (Item 17 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00338398
A METHOD OF DETECTING AND DISCRIMINATING BETWEEN NUCLEIC ACID SEQUENCES
PROCEDE DE DETECTION DE SEQUENCES D'ACIDE NUCLEIQUE ET DE DISCRIMINATION
ENTRE CES SEQUENCES
Main International Patent Class: C07H-015/12;
International Patent Class: C12N-015/10; C12P-019/34;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 5662

2/8/36 (Item 18 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00333481
ENCODED COMBINATORIAL CHEMICAL LIBRARIES
BIBLIOTHEQUES CHIMIQUES COMBINATOIRES CODEES
Main International Patent Class: C12Q-001/70;
International Patent Class: C07K-005/00; C07K-013/00; G01N-033/53;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 21935

2/8/37 (Item 19 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00333369
OLIGONUCLEOTIDE LIBRARIES USEFUL FOR PRODUCING PRIMERS
BIBLIOTHEQUES D'OLIGONUCLEOTIDES UTILES POUR LA PRODUCTION D'AMORCES
Main International Patent Class: C07H-021/04;
International Patent Class: C12P-019/34;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 20224

2/8/38 (Item 20 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00328052
PROTECTIVE EFFECTS OF MUTATED SUPERANTIGENS
EFFETS PROTECTEURS DE SUPERANTIGENES AYANT SUBI UNE MUTATION
Main International Patent Class: A01N-037/18;
International Patent Class: A61K-037/00; A61K-039/02; C07K-003/00;
C07K-013/00; C07K-015/00; C07K-017/00; C12N-005/00; C12N-015/00;
C12P-021/04; C12P-021/06; C12Q-001/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 10827

2/8/39 (Item 21 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00326045
VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC
RESPONSES BY SPECIFIC T CELL POPULATIONS
VACCINATION ET PROCEDES CONTRE DES MALADIES RESULTANT DE REPONSES
PATHOGENES DE POPULATIONS DE LYMPHOCYTES T SPECIFIQUES
Main International Patent Class: A61K-039/00;
International Patent Class: G01N-033/569; A61K-047/48;

A61K-048/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 17788

2/8/40 (Item 22 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00308236
HETERODIMERIC RECEPTOR LIBRARIES USING PHAGEMIDS
BANQUES DE RECEPTEURS HETERODIMERES UTILISANT DES PHAGEMIDES
Main International Patent Class: C12N-007/01;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 51788

2/8/41 (Item 23 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00306420
GENETICALLY ENGINEERED VACCINE STRAIN
SOUCHE DE VACCIN MISE AU POINT PAR GENIE GENETIQUE
Main International Patent Class: C12N-007/00;
International Patent Class: C12N-015/00; C12P-021/06; A61K-039/12;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 118467

2/8/42 (Item 24 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00303227
VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL POPULATIONS
VACCINATION ET PROCEDES DE LUTTE CONTRE DES MALADIES CAUSEES PAR DES REACTIONS PATHOGENES DE POPULATIONS DE LYMPHOCYTES T
Main International Patent Class: C07K-007/00;
International Patent Class: A61K-039/00; G01N-033/569; C12Q-001/68; A61K-039/395;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 19417

2/8/43 (Item 25 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00300506
IN-SITU HYBRIDIZATION PROBES FOR IDENTIFICATION AND BANDING OF SPECIFIC HUMAN CHROMOSOMES AND REGIONS
SONDES D'HYBRIDATION IN SITU SERVANT A L'IDENTIFICATION ET AU MARCAGE PAR BANDES DES CHROMOSOMES ET REGIONS CHROMOSOMIQUES SPECIFIQUES CHEZ L'HOMME
Main International Patent Class: C12N-015/10;
International Patent Class: C12Q-001/68;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 15247

2/8/44 (Item 26 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00294465
METHODS FOR PRODUCING ACYLOXYACYL HYDROLASE
PROCEDES DE PRODUCTION D'HYDROLASE D'ACYLOXYACYLE
Main International Patent Class: C12N-015/00;
International Patent Class: C12N-015/55; C12N-015/79; A61K-037/54;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 21012

2/8/45 (Item 27 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00294059
TRANSGENIC NON-HUMAN ANIMALS CAPABLE OF PRODUCING HETEROLOGOUS ANTIBODIES
ANIMAUX NON HUMAINS TRANSGENIQUES CAPABLES DE PRODUIRE DES ANTICORPS HETEROLOGUES
Main International Patent Class: A01H-001/00;

International Patent Class: C07H-021/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 38535

2/8/46 (Item 28 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00291135
GENOMIC MAPPING METHOD BY DIRECT HAPLOTYPING USING INTRON SEQUENCE ANALYSIS
PROCEDE DE CARTOGRAPHIE GENOMIQUE PAR IDENTIFICATION DIRECTE D'HAPLOTYPES
PAR L'ANALYSE DE SEQUENCES D'INTRONS
Main International Patent Class: C12Q-001/68;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 19605

2/8/47 (Item 29 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00273468
NEUROTROPHIN-3, A NOVEL NEUROTROPHIC FACTOR RELATED TO NERVE GROWTH FACTOR
AND BRAIN DERIVED NEUROTROPHIC FACTOR
NEUROTROPHINE-3, UN NOUVEAU FACTEUR NEUROTROPHIQUE RELATIF A LA CROISSANCE
DES NERFS ET FACTEUR NEUROTROPHIQUE DERIVE DU CERVEAU
Main International Patent Class: C12P-021/00;
International Patent Class: C12N-015/00; C12Q-001/00; C07H-015/12;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 28771

2/8/48 (Item 30 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00268595
CO-EXPRESSION OF HETEROMERIC RECEPTORS
COEXPRESSION DE RECEPTEURS HETEROMERES
Main International Patent Class: C12Q-001/70;
International Patent Class: C12Q-001/68; C12P-019/34; C12N-015/00; C12Q-001/02;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 15091

2/8/49 (Item 31 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00253781
DETERMINING DNA SEQUENCES BY MASS SPECTROMETRY
DETERMINATION DE SEQUENCES D'ADN PAR SPECTROMETRIE DE MASSE
Main International Patent Class: C12Q-001/68;
International Patent Class: C07H-019/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 10311

2/8/50 (Item 32 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00213537
A MODIFIED GAMMA INTERFERON, DNA SEQUENCES ENCODING IT AND PROCESSES FOR
PRODUCING IT
INTERFERON GAMMA MODIFIE, SEQUENCES D'ADN CODANT POUR CELUI-CI E T SES
PROCEDES DE PRODUCTION
Main International Patent Class: C12N-015/00;
International Patent Class: C07H-021/04; C12P-021/02; A61K-045/02;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 7094

2/8/51 (Item 33 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00211115
THE MANUFACTURE AND EXPRESSION OF GENES FOR THAUMATIN
PRODUCTION ET EXPRESSION DES GENES DE CODAGE DE LA THAUMATINE
Main International Patent Class: C12P-021/00;
Publication Language: English
Fulltext Availability:

Detailed Description
Claims
Fulltext Word Count: 13192

2/8/52 (Item 34 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00210500
OLIGONUCLEOTIDE POLYMERIC SUPPORT SYSTEM
SYSTEME DE SUPPORT POLYMERE D'OLIGONUCLEOTIDES
Main International Patent Class: C07H-015/12;
International Patent Class: C07H-017/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 10021
?begin 411
24jul00 14:02:14 User233832 Session D245.4
$0.60 0.136 DialUnits File88
$0.00 1 Type(s) in Format 6
$0.00 1 Types
$0.60 Estimated cost File88
$0.30 0.087 DialUnits File1
$0.30 Estimated cost File1
$11.81 0.801 DialUnits File340
$0.00 3 Type(s) in Format 6
$0.00 3 Types
$11.81 Estimated cost File340
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$2.06 0.434 DialUnits File349
$0.00 34 Type(s) in Format 8
$0.00 34 Types
$2.06 Estimated cost File349
OneSearch, 5 files, 1.896 DialUnits FileOS
$0.30 TYMNET
$17.07 Estimated cost this search
$24.90 Estimated total session cost 7.530 DialUnits

File 411:DIALINDEX(R)

DIALINDEX(R)
(c) 2000 The Dialog Corporation plc

*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
?set files allmed allchem
You have 201 files in your file list.
(To see banners, use SHOW FILES command)
?s primer? ? (5n) portion and arra??? (5n) (DNA or nucleotide? ? or oligonucleotide? ?) and py<1996

Your SELECT statement is:
s primer? ? (5n) portion and arra??? (5n) (DNA or nucleotide? ? or oligonucleotide? ?) and py<1996

Items	File
Examined 50 files	
Examined 100 files	
1	340: CLAIMS(R)/US Patent_1950-00/Jul 14
3	348: European Patents_1978-2000/Jun W04
5	349: PCT Fulltext_1983-2000/UB=, UT=20000629
Examined 150 files	
Processing	
2	654: US Pat.Full._1990-2000/Jul 18
Examined 200 files	

4 files have one or more items; file list includes 201 files.
One or more terms were invalid in 38 files.

?save temp protion
>>>You must limit names to 1-6 characters when saving
>>>a DIALOG search.
?save temp port
Temp SearchSave "TDPORT" stored
?begin hits
24jul00 14:08:03 User233832 Session D245.5
$7.89 6.314 DialUnits File411
$7.89 Estimated cost File411
$0.30 TYMNET
$8.19 Estimated cost this search
$33.09 Estimated total session cost 13.844 DialUnits

SYSTEM:OS - DIALOG OneSearch
File 340:CLAIMS(R)/US Patent 1950-00/Jul 14
(c) 2000 IFI/CLAIMS(r)
File 348:European Patents 1978-2000/Jun W04
(c) 2000 European Patent Office
*File 348: ** NEW FEATURE ** English language translations of French
and German abstracts now searchable. See HELP NEWS 348 for info.
File 349:PCT Fulltext 1983-2000/UB=, UT=20000629
(c) 2000 WIPO/MicroPatent
File 654:US Pat.Full. 1990-2000/Jul 18
(c) format only 2000 The Dialog Corp.
*File 654: Reassignment data current through 12/06/1999 recordings.
Due to recent processing problems, the SORT command is not working.

Set	Items	Description

?exs
Executing TDPORT
>>>SET HILIGHT: use ON, OFF, or 1-5 characters
Processing

Processing
67814 PRIMER? ?
2239602 PORTION
2939 PRIMER? ?(5N)PORTION
380481 ARRA???
103228 DNA
76021 NUCLEOTIDE? ?
48966 OLIGONUCLEOTIDE? ?
3048 ARRA???(5N)((DNA OR NUCLEOTIDE? ?) OR OLIGONUCLEOTIDE? ?)
4308378 PY<1996
S1 11 PRIMER? ? (5N) PORTION AND ARRA??? (5N) (DNA OR NUCLEOTIDE? ? OR OLIGONUCLEOTIDE? ?) AND PY<1996
?rd
>>>Duplicate detection is not supported for File 340.
>>>Duplicate detection is not supported for File 348.
>>>Duplicate detection is not supported for File 349.
>>>Duplicate detection is not supported for File 654.
>>>All specified files are unsupported, command ignored.
?t s2/3,ab,k/1-11
>>>Set 2 does not exist
?t s1/3,ab,k/1-11

1/3,AB,K/1 (Item 1 from file: 340)
DIALOG(R)File 340:CLAIMS(R)/US Patent
(c) 2000 IFI/CLAIMS(r). All rts. reserv.

Dialog Acc No: 3232166 IFI Acc No: 9938545
Document Type: C
METHOD OF DETECTING AND DISCRIMINATING BETWEEN NUCLEIC ACID SEQUENCES;
ALLELE PRIMER COMPLEMENTARY TO A TARGET DNA SEQUENCE AND IMMOBILIZED TO A
SOLID SUPPORT; TOOL FOR DIAGNOSIS AND GENETIC ANALYSIS; DETECTION OF
GENETIC DISORDERS SUCH AS SICKLE CELL ANEMIA AND THALASEMIA
Inventors: Wallace R Bruce (US)
Assignee: City of Hope Assignee Code: 23857
Patent (No,Date), Applic (No,Date)
US 5981176 19991109 US 94193039 19940204
Calculated Expiration: 20161109
PCT Information:
Publication Number: WO 9325563 Issue Date: 19931223
Application Number: WO 92US5133 Application Date: 19920617
Section 371 Filing Date: 19940204
Section 102(e) Date: 19940204
Priority Applic(No,Date): US 94193039 19940204

Abstract:
The present invention is directed to a method for detecting the presence or absence of any specific target nucleic acid sequence contained in a sample.
The target sequence can be present in the sample in a relatively pure form
or as a component of a member of a mixture of different nucleic acids. The
method of the invention utilizes a novel primer design. The sequence of the
novel primer is composed of two portions, the 3' portion is a primer specific for the desired nucleic acid sequence and the 5' portion is complementary to preselected nucleic acid sequence. Extension of the 3'
portion of the primer with a labeled deoxynucleosides triphosphate yields a labeled extension product if, but only if, the template includes the target sequence. The labeled extension product is detected by hybridization of the 5' portion to the preselected sequence. The preselected sequence is preferably bound to a solid support as one member
of a grid having a group of sequences.

PCT Information:
... Publication Number: 19931223

Abstract:
...primer design. The sequence of the novel primer is composed of two portions, the 3' portion is a primer specific for the desired nucleic acid sequence and the 5' portion is complementary to preselected nucleic
acid sequence. Extension of the 3' portion of the primer with a labeled deoxynucleosides triphosphate yields a labeled extension product if, but
only if, the...
Exemplary Claim:
D R A W I N G

1. An allele specific primer having a 3' portion and a 5' portion wherein said 3' portion is complementary to a target sequence adjacent
...
Non-exemplary Claims:
...the preselected nucleic acid sequence is an oligonucleotide immobilized
at a preselected location in an array of immobilized oligonucleotides on a solid support...

...nucleic acid sample which may include a target nucleic acid sequence,
(ii) an allele specific primer having a 3' portion and a 5' portion wherein said 3' portion is complementary to a target nucleic acid...

...the preselected nucleic acid sequence is an oligonucleotide immobilized
at a preselected location in an array of immobilized oligonucleotides on a solid support...

...claim 6, wherein said target nucleic acid sequences are alleles of one another, the 3' portion of said primer is positioned immediately adjacent to the variant nucleotide responsible for the allelism, and said primer...

...the preselected nucleic acid sequences is an oligonucleotide immobilized at a preselected location in an array of immobilized oligonucleotides .

1/3,AB,K/2 (Item 1 from file: 348)
DIALOG(R)File 348:European Patents

00655901
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
DNA analyzing method.
DNS-Analyse Verfahren.
Procede d'analyse d'ADN.
PATENT ASSIGNEE:
HITACHI, LTD., (204144), 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo 100, (JP), (applicant designated states: DE;GB)
INVENTOR:
Kambara, Hideki, 1-4-3, Kitanodai, Hachiouji-shi, Tokyo 192, (JP)
Okano, Kazunori, 5-17-2-402, Hon-cho, Shiki-shi, Saitama-ken 353, (JP)
Takahashi, Satoshi, Nr. 202, Dai-12 Shin'ei-manshon, 1-5-17, Nishi, Kunitachi-shi, Tokyo 186, (JP)
Nagai, Keiichi, 3-44-14, Sakuragaoka, Higashiyamato-shi, Tokyo 207, (JP)
Kawamoto, Kazuko, Nr. 309, Hitachi Ozaki-haitsu, 3-8-9, Higashi-koigakubo , Kokubunji-shi, Tokyo 185, (JP)
Furuyama, Hiroko, Nr. 110, Hitachi Ozaki-haitsu, 3-8-9, Higashi-koigakubo , Kokubunji-shi, Tokyo 185, (JP)
LEGAL REPRESENTATIVE:
Strehl Schubel-Hopf Groening & Partner (100941), Maximilianstrasse 54, D-80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 630972 A2 941228 (Basic)
EP 630972 A3 951129
APPLICATION (CC, No, Date): EP 94109745 940623;
PRIORITY (CC, No, Date): JP 93155534 930625; JP 93189624 930730
DESIGNATED STATES: DE; GB
RELATED DIVISIONAL NUMBER(S) - PN (AN):
(EP 99124555)
INTERNATIONAL PATENT CLASS: C12Q-001/68;

ABSTRACT EP 630972 A2
A DNA analyzing method which bonds the oligomer of the known base sequence to the DNA fragment obtained by digesting sample 1 with restrictive enzyme, causes hybridization between oligomer 3 and DNA fragment using the oligomers 3 which have the sequences of all combinations of the types of the bases within the length of several bases following the known base sequence, checks presence or absence of the hybridization or complementary DNA strand extension, identifies the DNA fragment terminal sequence from this result, and fractionates the DNA fragments and analyzes them or analyzes them as they are. This DNA analyzing method provides an effective analysis of mixtures of long DNAs or DNA fragments.
ABSTRACT WORD COUNT: 114

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF2 731
SPEC A (English) EPABF2 6582
Total word count - document A 7313
Total word count - document B 0
Total word count - documents A + B 7313

ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348

...SPECIFICATION strict and a fraction can contain several DNA fragment species. In addition to gel electrophoresis, DNA probe array , liquid chromatograph or affinity chromatograph can be used as the separation means. When the amount...

...bonding, so when reaction temperature is increased, stability is maintained at the 3' terminal sequence portion of the primer only for the fragments having the sequence where hybridization exhibits a complete agreement, and, in...invention, and the DNA probe has the enzyme recognizing sequence 5 (cuting cites), the universal primer portion of 6 being common sequence among DNA probes and the addition sequence portion 7 to...fractionation method as shown in Fig. 5 is also available. That uses plural of linear DNA probe array comprising thin plates. Each probe array has many cells holding different oligomer probes, respectively, however, only one cell per array is used to fractionate DNA at a time. Each probe array can be separated for fractionating the DNA hold in the cell. For this purpose, one...

...prepared and are laid out superimposed by shifting the position of

more
than one liner DNA probe array 17 to the direction where separated cells are laid out. The flow channel 18 for...

...DNA fragment are fixed, the two-dimensional probe array composed by more
than one linear DNA probe array 17 arranged in two dimensions is analyzed and inspected in advance, using the device as...the same sequence of the 3' terminal of the unknown sequence portion, for example.
The portion 128 in the primer , which is hybridized with the known sequence portion of the 3' terminal of the DNA...made, resulting enhanced
selectivity.
Making DNA have the known sequence portion and the unknown sequence
portion and using the selection primer according to the above principle, we performed base sequencing operation normally used as described below...

...CLAIMS the vicinity of the terminals of said DNA fragments are recognized with the oligomer fixed array sensor.
4. A DNA analyzing method according to Claim 3, wherein, said array
sensor in the process ii) comprises...

...line sensors in which each of oligomers having various sequence is immobilized in a cell arrayed linearly.
5. A DNA analyzing method according to any of the Claims 1, 3 and 4,
which includes, between...

...DNA fragment including, at least, part of the known base sequence and
oligomer on the array sensor.
7. A DNA analyzing method according to Claim 6, wherein, in said process step ii), the base sequence...

...in said process ii), allows detection of the presence or absence of hybridization between said DNA fragment and oligomer on the array
sensor, recognition of the base sequence at the terminal of the DNA fragment according to the result, and fractionation, separate taking or analysis of said DNA fragment on the array sensor.
9. A DNA analyzing method according to Claim 7, wherein said base
sequence c) has a length of...

...known base sequence at the terminals of said DNA fragments is recognized
on a fixed array sensor.
12. A DNA analyzing method comprising A) a process step of digesting
double stranded DNA, B) a process...

1/3,AB,K/3 (Item 2 from file: 348)
DIALOG(R)File 348:European Patents

00543284
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Method of characterising genomic DNA
Verfahren zur Charakterisierung genomischer DNA
Procede pour la caracterisation de l'ADN genomique
PATENT ASSIGNEE:
ZENECA LIMITED, (1579441), 15 Stanhope Gate, London W1Y 6LN, (GB),
(applicant designated states:
AT;BE;CH;DE;DK;ES;FR;GR;IE;IT;LI;LU;MC;NL;PT;SE)
INVENTOR:
Jeffreys, Alec John, University of Leicester, Adrian Building, University
Road, Leicester, GB-LEI 7RH, (GB)
LEGAL REPRESENTATIVE:
Phillips, Neil Godfrey Alasdair et al (62643), Astra Zeneca PLC Global
Intellectual Property Mereside Alderley Park, Macclesfield Cheshire SK10 4TG, (GB)
PATENT (CC, No, Kind, Date): EP 530009 A2 930303 (Basic)
EP 530009 A3 931103
EP 530009 B1 990113
APPLICATION (CC, No, Date): EP 92307768 920826;
PRIORITY (CC, No, Date): GB 9118371 910827; GB 9119089 910906; GB 9124636
911120; GB 9207379 920403; GB 9212627 920615; GB 9212881 920617
DESIGNATED STATES (Pub A): AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; (Pub B): AT; BE; CH; DE; DK; ES; FR; GR; IE; IT; LI;
LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: C12Q-001/68;

ABSTRACT EP 530009 A2
A method of characterising a test sample of genomic DNA which method
comprises amplifying a tandemly repeated region, comprising more than one
type of repeat unit, as far as internal repeat units of a specific type so as to generate a set of amplification products which identify the relative positions of the internal repeat units within the tandemly repeated region, and separating the set of amplification products to provide a sample code. The sample codes are suitable for computerised
storage on, and retrieval from, a database. The invention also provides a
novel method for the detection of diagnostic base sequences in one or more nucleic acids contained in a sample. (see image in original document)

ABSTRACT WORD COUNT: 117

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9902 540
CLAIMS B (German) 9902 455
CLAIMS B (French) 9902 563
SPEC B (English) 9902 27693
Total word count - document A 0
Total word count - document B 29251
Total word count - documents A + B 29251

ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348

...SPECIFICATION sequence. The TAG primer is rich in G+C residues relative
to the ex-TAG portion of the control PCR primers . This second PCR reaction is performed at a high annealing temperture which prevents the
action...AluI digestion of PCR products containing the site. The flanking
region extending into the minisatellite array was amplified from total genomic DNA using 31-Tag-A at high concentration plus flanking primer
31A. Because of the primer...

1/3,AB,K/4 (Item 3 from file: 348)
DIALOG(R)File 348:European Patents
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00302442
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
A modified gamma interferon dna sequences encoding it and process for
producing it.
Modifiziertes Gamma-Interferon, DNS-Sequenzen, die dieses kodieren, sowie
Verfahren zu dessen Herstellung.
Interferon gamma modifie, sequences d'ADN codant pour celui-ci et ses
procedes de production.
PATENT ASSIGNEE:
BIOGEN, INC., (1049451), 14 Cambridge Center, Cambridge Massachusetts
02142, (US), (applicant designated states:
AT;BE;CH;DE;FR;GB;LI;LU;NL;SE)
INVENTOR:
ALLET Bernard, rue de Bossones, 20, 1213 Onex, (CH)
LEGAL REPRESENTATIVE:
Bannerman, David Gardner et al (28001), Withers & Rogers 4 Dyer's Buildings Holborn, London, EC1N 2JT, (GB)
PATENT (CC, No, Kind, Date): EP 318765 A1 890607 (Basic)
APPLICATION (CC, No, Date): EP 88119117 850316;
PRIORITY (CC, No, Date): GB 8406910 840316; GB 8413297 840524
DESIGNATED STATES: AT; BE; CH; DE; FR; GB; LI; LU; NL; SE
RELATED PARENT NUMBER(S) - PN (AN):
EP 174999
INTERNATIONAL PATENT CLASS: C12N-015/00; C07H-021/04; C12P-021/02;
A61K-045/02;

ABSTRACT EP 318765 A1
An amino-(DELTA)3-gamma interferon, DNA sequences encoding it, and
methods of producing it. This amino-(DELTA)3-gamma interferon is soluble,
easily purifiable, highly stable and has at least a substantially similar level of biological activity as mature IFN-(gamma).

ABSTRACT WORD COUNT: 39

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 731
SPEC A (English) EPABF1 5441
Total word count - document A 6172
Total word count - document B 0
Total word count - documents A + B 6172

ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348

...SPECIFICATION the following detailed description is set forth.
In the description, the following terms are employed:
DNA Sequence -- A linear array of nucleotides connected one to the other by phosphodiester bonds between the 3(min) and 5(min...the synthesis of a DNA sequence lacking those 9-nucleotides.
We hybridized the above-described primer to the single-standed DNA
portion of our renatured DNA, described above (Step (d), Figure 2). We
affected this hybridization in...

1/3,AB,K/5 (Item 1 from file: 349)
DIALOG(R)File 349:PCT Fulltext
(c) 2000 WIPO/MicroPatent. All rts. reserv.

00400748
HEPATITIS G VIRUS AND MOLECULAR CLONING THEREOF
VIRUS DE L'HEPATITE G ET SON CLONAGE MOLECULAIRE
Patent Applicant/Assignee:
GENELABS TECHNOLOGIES INC

Inventor(s):
KIM Jungsuh P
FRY Kirk E
YOUNG Lavonne Marie
LINNEN Jeffrey M
WAGES John
Patent and Priority Information (Country, Number, Date):
Patent: WO 9532291 A2-A3 19951130
Application: WO 95US6169 19950519 (PCT/WO US9506169)
Priority Application: US 94246985 19940520; US 94285543 19940803; US
94285558 19940803; US 94329729 19941026; US 94344271 19941123; US
94357509 19941216; US 95389886 19950215
Designated States: AM; AT; AU; BB; BG; BR; BY; CA; CH; CN; CZ; DE; DK; EE;
ES; FI; GB; GE; HU; JP; KE; KG; KP; KR; LR; LT; LU; LV; MD; MG; MN; MW;
MX; NO; NZ; PL; PT; RO; RU; SD; SE; SI; SK; TJ; TT; UA; UZ; VN; SD; SZ;
UG; AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF;
BJ; CF; CG; CI; GN; ML; MR; NE; SN; TD; TG
Publication Language: English
Fulltext Word Count: 102273

English Abstract
Polypeptide antigens are disclosed which are immunoreactive with sera
from individuals having a non-A, non-B, non-C, non-D, non-E Hepatitis,
herein designated Hepatitis G virus (HGV). Corresponding genomic-fragment
clones containing polynucleotides encoding the open reading frame
sequences for the antigenic polypeptides are taught. The antigens are
useful in diagnostic methods for detecting the presence of HGV in test
subjects. The antigens are also useful in vaccine and antibody
preparations. In addition, the entire coding sequences of two HGV
isolates are disclosed. Methods are presented for nucleic acid-based
detection of HGV in samples and also methods for the isolation of further
genomic sequences corresponding to HGV.

French Abstract
L'invention concerne des antigenes polypeptidiques qui sont imunoreactifs
avec des serums provenant de personnes ayant une hepatite non A, non B,
non C, non D, non E, designee ici virus de l'hepatite G (HGV). Des clones
de fragments genomiques correspondants contenant des polynucleotides
codant les sequences de structures a lecture directe provenant de
polypeptides antigeniques sont egalement concernes. Les antigenes sont
utiles dans des procedes diagnostics pour la detection de la presence du
HGV dans des sujets soumis aux tests. Les antigenes sont egalement utiles
dans des preparations de vaccins et d'anticorps. De plus, toutes les
sequences de codage des deux isolats HGV sont decrites. L'invention
decrit egalement la detection basee sur l'acide nucleique de HGV dans des
echantillons, ainsi que des procedes permettant d'isoler d'autres
sequences genomiques correspondant a HGV.

Patent and Priority Information (Country, Number, Date):
Patent: ...19951130
Fulltext Availability:
Detailed Description

Detailed Discription
... antigenic determinant defined as the specific portion of an antigen
with which the antigen binding portion of a specific antibody
interacts.

10. An antigen or epitope is "specifically immunoreactive" with HGV...
case of large coding sequences, synthesized by a series of cloning steps
involving a tandem array of multiple oligonucleotide fragments
corresponding to the coding sequence (Crea; Yoshio et al.; Eaton et al.).
Oligonucleotide coding...
Publication year: 1995

1/3,AB,K/6 (Item 2 from file: 349)
DIALOG(R)File 349:PCT Fulltext
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00373128
MARKERS FOR DETECTION OF CHROMOSOME 16 REARRANGEMENTS
MARQUEURS UTILISES POUR LA DETECTION DE REARRANGEMENT DU CHROMOSOME 16
Patent Applicant/Assignee:
THE REGENTS OF THE UNIVERSITY OF MICHIGAN
THE BOARD OF REGENTS UNIVERSITY OF TEXAS SYSTEM
Inventor(s):
LIU Pu
COLLINS Francis S
SICILIANO Michael J
CLAXTON David
Patent and Priority Information (Country, Number, Date):
Patent: WO 9504067 A1 19950209
Application: WO 94US8530 19940726 (PCT/WO US9408530)
Priority Application: US 9399869 19930729

Designated States: CA; JP; AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LU;
MC; NL; PT; SE
Publication Language: English
Fulltext Word Count: 20901

English Abstract
The breakpoints of the pericentric inversion of chromosome 16 have been
cloned. Two genes, one at each breakpoint, have also been identified, as
well as several forms of the inversion 16 fusion gene. Diagnostic
applications for chromosome 16 abnormalities and, particularly acute
myeloid leukemia, are also within the scope of the present invention. The
figure is a diagrammatic representation of the locations of the human
genomic chromosome 16p content of hybrid cells and recombinant clones.

French Abstract
On a clone les points de fracture de l'inversion pericentrique du
chromosome 16. On a egalement identifie deux genes, un a chaque point de
fracture, ainsi que plusieurs formes du gene de fusion du chromosome
d'inversion 16. L'invention porte egalement sur les applications
diagnostiques pour les anomalies du chromosome 16 et, particulierement,
la leucemie myelogene aigue. La figure 1A est une representation
schematique des emplacements du contenu du chromosome genomique humain
16p des cellules hybrides et des clones de recombinaison.

Patent and Priority Information (Country, Number, Date):
Patent: ...19950209
Fulltext Availability:
Detailed Description

Detailed Discription
... acid" as used herein is

.35 intended to mean natural or synthetic linear and sequential arrals of nucleotides and nucleosides, e.g. in cDNA, genomic DNA (gDNA), mRNA,
and RNA, oligonucleotides, oligonucleosides, and...is an associated deletion centromeric to the p arm breakpoint, which would truncate the 5'
portion of MYH1 1.

Primers were designed from the middle of the CBFB coding sequence and
the 3' region of...
Publication year: 1995

1/3,AB,K/7 (Item 3 from file: 349)

DIALOG(R)File 349:PCT Fulltext
(c) 2000 WIPO/MicroPatent. All rts. reserv.

00350844
POSITIONAL SEQUENCING BY HYBRIDIZATION
SEQUENCAGE PAR HYBRIDATION POSITIONNELLE
Patent Applicant/Assignee:
TRUSTEES OF BOSTON UNIVERSITY
Inventor(s):
CANTOR Charles
PRZETAKIEWICZ Marek
Patent and Priority Information (Country, Number, Date):
Patent: WO 9411530 A1 19940526
Application: WO 93US10616 19931105 (PCT/WO US9310616)
Priority Application: US 92972012 19921106; US 93110691 19930823
Designated States: JP; AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LU; MC;
NL; PT; SE
Publication Language: English
Fulltext Word Count: 23167

English Abstract
This invention is directed to methods and reagents useful for sequencing
nucleic acid targets utilizing sequencing by hybridization technology comprising probes, arrays of probes and methods whereby sequence information is obtained rapidly and efficiently in discrete packages. That information can be used for the detection, identification, purification and complete or partial sequencing of a particular target nucleic acid. When coupled with a ligation step, these methods can be performed under a single set of hybridization conditions. The invention
also relates to the replication of probe arrays and methods for making and replicating arrays of probes which are useful for the large scale manufacture of diagnostic aids used to screen biological samples for specific target sequences. Array created using PCR technology may comprise probes with 5'-and/or 3'-overhangs.

French Abstract
Cette invention se rapporte a des procedes et a des reactifs utilises dans le sequencage de cibles d'acide nucleique utilisant la technique de
sequencage par hybridation comprenant des sondes, des ensembles de sondes
et des procedes au moyen desquels on obtient rapidement et efficacement
des informations de sequences en paquets individuels. Ces informations
peuvent etre utilisees dans la detection, l'identification, la purification et le sequencage complet ou partiel d'un acide nucleique d'une cible particuliere. Lorsqu'ils sont associes a une etape de ligation, ces procedes peuvent etre effectues dans des conditions d'hybridation reunies en un seul ensemble. L'invention se rapporte

egalement a la replication d'ensembles de sondes et a des procedes de fabrication et de replication d'ensembles de sondes qui sont utilises dans la production industrielle de supports de diagnostics, ces derniers etant utilises pour examiner des echantillons biologiques pour des sequences de cibles specifiques. Les ensembles obtenus par la technique de l'ACP (amplification en chaine de la polymerase) peuvent comporter des sondes avec des elements en porte-a-faux en position 5' et/ou 3'.

Patent and Priority Information (Country, Number, Date):
Patent: ...19940526
Fulltext Availability:
Detailed Description
Claims

Detailed Discription
... length n is immobilized as an ordered array on a solid support and an unknown DNA sequence is hybridized to this array (K.R. Khrapko et al., J. DNA Sequencing and Mapping 1:375-88, 1991). The...a 5' overhang or (B) a 3' overhang.

Figure 4 Preparation of a random probe array .
Figure 5 Single nucleotide extension of a probe hybridized with a target nucleic acid using DNA polymerase and a...Preferably, D is between about 3-20 nucleotides and S is between about 3-20 nucleotides and the entire array is fixed to a solid support which may be composed of plastics, ceramics, metals, resins...that C is between about 7-20 nucleotides and R is between about 3-10 nucleotides .

Arrays may comprise about 4R different probes, but in certain applications, an entire array of every...site(s) of a restriction enzyme (on one or both sides), synthesizing an array of primers each compliementary to a portion of the constant sequence of the Y terminus, hybridizing the two arrays together to form...target to the first nucleic acid of the hybrid, hybridizing the ligated hybrid with an array of oligonucleotides with random nucleotide sequences, ligating the hybridized oligonucleotide to the second nucleic acid of the ligated hybrid, isolating...depicted in Figure 2. It is different from any other because it uses a duplex oligonucleotide array with Y-ended single-stranded overhangs. The duplex portion of each DNA shown is constant...and the hybridization conditions used, can all be varied, using the initial set of cloned DNA probes. Once the sort of array that works best is determined, a complete and fully characterized array can then be constructed...contain the desired 5 or 6 base ' variable overhang adjacent to a unique 15 base DNA sequence.

The master array consists of a set of streptavidin bead-impregnated plastic coated metal pins, each of which...88:189-93, 1991).

Example 6
Positional sequencing by hybridization with a nested set of DNA sa Thus far described arrays have been very inefficiently utilized because with only a single target nucleic acid, only a...to the known sequence of the target, as revealed by its hybridization position on an oligonucleotide array . For example, an array of 4n single-stranded overhangs of the type NAGCTA 3', as shown in the Figure...in essence doing a bit of four color DNA sequencing at each site on the oligonucleotide array . For example, as shown in Qpue 9, for the sequence (PULT, such an approach would...

Claim
... R flanked by the cleavage sites of a restriction enzyme; b) synthesizing an array of primers each compliementary to a portion of the constant sequence of the Y-terminus, hybridizing the two arrays together to form...support comprises streptavidin.

29. The method of claim 27 wherein the nucleic acids of the array are between about 15-30 nucleotides in length and the nucleic acids of the set are between about 10-25 nucleotides...62 wherein DJs between about 3-20 nucleotides and S is between about 3-20 nucleotides .

64. The array of claim 62 which is fled to a solid support wherein the solid support is...
Publication year: 1994

1/3,AB,K/8 (Item 4 from file: 349)
DIALOG(R)File 349:PCT Fulltext

00333369
OLIGONUCLEOTIDE LIBRARIES USEFUL FOR PRODUCING PRIMERS
BIBLIOTHEQUES D'OLIGONUCLEOTIDES UTILES POUR LA PRODUCTION D'AMORCES
Patent Applicant/Assignee:
STRATAGENE
SORGE Joseph A
SHOEMAKER Daniel
Inventor(s):
SORGE Joseph A
SHOEMAKER Daniel
Patent and Priority Information (Country, Number, Date):
Patent: WO 9320096 A1 19931014
Application: WO 93US3230 19930402 (PCT/WO US9303230)

Priority Application: US 92863412 19920403
Designated States: CA; JP; US; US; US; AT; BE; CH; DE; DK; ES; FR; GB; GR;
IE; IT; LU; MC; NL; PT; SE
Publication Language: English
Fulltext Word Count: 20224

English Abstract
An oligonucleotide library is described that is useful for producing an oligonucleotide of preselected sequence comprising a plurality of oligonucleotide members comprising one or more oligonucleotide species
and having the compositional formula: (X)a(N)b; wherein X represents a
non-degenerate nucleotide base and N represents a degenerate nucleotide
base; "a" represents the number of non-degenerate nucleotide positions
and is from 3 to 8; "b" represents the number of degenerate nucleotide positions and is from 0 to 4 but not greater than "a"; and wherein each of the oligonucleotide species is capable of forming a hybridization complex with at least one other of the oligonucleotide species in the library such that a single ligation event of the hybridization complex with another hybridization complex derived from the library produces a
ligation reaction product comprising greater than 12 contiguous nucleotide base pairs.

French Abstract
On decrit une bibliotheque d'oligonucleotides qui est utile pour la production d'un oligonucleotide a sequence preselectionnee dotee de plusieurs membres d'oligonucleotides comprenant une ou plusieurs especes
d'oligonucleotides et presentant une formule de composition (X)a(N)b; ou
X represente une base de nucleotide non degeneree et N represente une
base de nucleotide degeneree; "a" represente le nombre de positions de
nucleotides non degeneres et varie de 3 a 8; "b" represente le nombre de
positions de nucleotides degeneres et varie de 0 a 4 mais ne depasse pas
"a"; et ou chacune des especes d'oligonucleotides est a meme de former un
complexe d'hybridation avec au moins une autre des especes d'oligonucleotides presente dans la bibliotheque de maniere qu'une seule
liaison d'extremites franches du complexe d'hybridation avec un autre complexe d'hybridation provenant de la bibliotheque donne un produit de
reaction de liaison d'extremites franches qui comprend plus de douze paires de bases de nucleotides contigues.

Patent and Priority Information (Country, Number, Date):
Patent: ...19931014
Fulltext Availability:
Detailed Description

Detailed Discription
... PCR of a 980 base pair Wp) fragment from an M13mp18 using a primer
pair (primers A and B). The lower portion of Figure 3 illustrates the agarose gel analysis showing that the 980 bp PCR product...for the manipulative step of phosphDrylation.

Preferred kits contain organized enclosures such that the different oligonucleotides are distributed in a preselected array . For example, a 96-well microtiter tray is an enclosure that provides an array of...
Publication year: 1993

1/3,AB,K/9 (Item 5 from file: 349)
DIALOG(R)File 349:PCT Fulltext
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00213537
A MODIFIED GAMMA INTERFERON, DNA SEQUENCES ENCODING IT AND PROCESSES FOR
PRODUCING IT
INTERFERON GAMMA MODIFIE, SEQUENCES D'ADN CODANT POUR CELUI-CI E T SES
PROCEDES DE PRODUCTION
Patent Applicant/Assignee:
BIOGEN NV
ALLET Bernard
Inventor(s):
ALLET Bernard
Patent and Priority Information (Country, Number, Date):
Patent: WO 8504186 A2 19850926
Application: WO 85EP109 19850316 (PCT/WO EP8500109)
Priority Application: GB 846910 19840316; GB 8413297 19840524
Designated States: AT; BE; CH; DE; FR; GB; JP; LU; NL; SE; US
Publication Language: English
Fulltext Word Count: 7094

English Abstract
A amino-DELTA3-gamma interferon, DNA sequences encoding it, and methods
of producing it. This amino-DELTA-3-gamma interferon is soluble, easily
purifiable, highly stable and has at least a substantially similar level of biological activity as mature IFN-gamma.

French Abstract
Interferon amino-DELTA3-gamma, sequences d'ADN codant pour celui- ci et
ses procedes de production. Cet interferon amino-DELTA-gamma est soluble,
facilement purifiable, tres stable, et comporte au moins un niveau

d'activite biologique essentiellement similaire a celui de l'IFN-gamma
mur.

Patent and Priority Information (Country, Number, Date):
Patent: ...19850926
Fulltext Availability:
Detailed Description

Detailed Discription
... following detailed description is set forth.

In the description, the following terms
are employed:

-10 DNA Sequence -- A linear array of nucleo tides connected one to
the other by phosphodiester bonds ...the synthesis of a DNA sequence
lacking those 9-nucleotides.

We hybridized the above-described primer to the single-standed DNA
portion of our renatured DNA, described above (Step (d), Figure 2). We
affected this hybridization in...
Publication year: 1985

1/3,AB,K/10 (Item 1 from file: 654)
DIALOG(R)File 654:US Pat.Full.

03033023
Utility
METHOD OF DETECTING AND DISCRIMINATING BETWEEN NUCLEIC ACID SEQUENCES

PATENT NO.: 5,981,176
ISSUED: November 09, 1999 (19991109)
INVENTOR(s): Wallace, R. Bruce, Greenbrae, CA (California), US (United
States of America)
ASSIGNEE(s): City of Hope, (A U.S. Company or Corporation), Duarte, CA
(California), US (United States of America)
[Assignee Code(s): 23857]
APPL. NO.: 8-193,039
FILED: February 04, 1994 (19940204)
PCT: PCT-US92-05133 (WO 92US5133)
Section 371 Date: February 04, 1994 (19940204)
Section 102(e) Date: February 04, 1994 (19940204)
Filing Date: June 17, 1992 (19920617)
Publication Number: WO93-25563 (WO 9325563)
Publication Date: December 23, 1993 (19931223)

This application is a 371 of PCT-US92-05133, filed Jun. 17, 1992.

This invention was made with government support under Grant No. HG00099
awarded by the National Institutes of Health. The government has certain
rights in the invention.

FULL TEXT: 747 lines

ABSTRACT

The present invention is directed to a method for detecting the presence or
absence of any specific target nucleic acid sequence contained in a sample.
The target sequence can be present in the sample in a relatively pure form
or as a component of a member of a mixture of different nucleic acids. The
method of the invention utilizes a novel primer design. The sequence of the
novel primer is composed of two portions, the 3' portion is a primer
specific for the desired nucleic acid sequence and the 5' portion is
complementary to preselected nucleic acid sequence. Extension of the 3'
portion of the primer with a labeled deoxynucleosides triphosphate
yields a labeled extension product if, but only if, the template includes
the target sequence. The labeled extension product is detected by
hybridization of the 5' portion to the preselected sequence. The
preselected sequence is preferably bound to a solid support as one member
of a grid having a group of sequences.

...December 23, 1993 (19931223)

ABSTRACT

... primer design. The sequence of the novel primer is composed of two
portions, the 3' portion is a primer specific for the desired nucleic
acid sequence and the 5' portion is complementary to preselected nucleic
acid sequence. Extension of the 3' portion of the primer with a labeled
deoxynucleosides triphosphate yields a labeled extension product if, but
only if, the...
... novel primer design. The sequence of the primer is composed of two
portions, the 3' portion is a primer specific for the target nucleic
acid sequence and the 5' portion is complementary to a preselected nucleic

acid sequence. Extension of the 3' portion of the primer with labeled deoxynucleosides triphosphate yields a labeled extension product if, but only if, the template...on templates which may or may not include a target nucleic acid sequence. The 3' portion of the primer is complementary to a portion of the template adjacent the target sequence. The 5' portion of the primer is complementary to a different preselected nucleic acid sequence. Extension of the 3' portion of the primer with a labeled deoxynucleoside triphosphates yields a labeled extension product if, but only if, the...
... initiate nucleic acid synthesis by a template dependent polymerase such as a DNA polymerase. The primer is complementary to a portion of a template nucleic acid.

"Primer extension" refers to the process of elongation of a primer on a nucleic acid template...invention is described by reference to the Figures.
As shown by FIG. 1, the 3' portion of the primer is complementary to a sequence adjacent a target sequence which may or may not be present in a sample. The 5' portion of the primer is complementary to a known or preselected sequence preferably immobilized on a solid support and...

... the primer may have any desired number of nucleotides. The number of nucleotides in each portion of the primer may be the same or different. Preferably each portion of the primer contains from about 10 to about 100 nucleotides. The word "about" indicates a variance e...As specifically depicted by FIG. 2, the amplification product is subjected to hybridization with a primer which includes a 3' portion complementary to the "A-T" allele which is then subjected to extension with labeled dNTP...

...dCTP or dGTP.

The labeled primer extension product is screened by hybridization of the 5' portion of the labeled primer with the solid support depicted by FIG. 3. Each location on the array of sequences...sequence of the TYR gene with its 3' nucleotide immediately flanking the polymorphic base. This portion of the ASPE primer participates in the primer extension reaction. Y sequence is extended by the Ampli-Taq DNA...
I claim:

1. An allele specific primer having a 3' portion and a 5' portion wherein said 3' portion is complementary to a target sequence adjacent...

... the preselected nucleic acid sequence is an oligonucleotide immobilized at a preselected location in an array of immobilized oligonucleotides on a solid support.

4. A method for identifying an allele ...nucleic acid sample which may include a target nucleic acid sequence,
(ii) an allele specific primer having a 3' portion and a 5' portion wherein said 3' portion is complementary to a target nucleic acid...the preselected nucleic acid sequence is an oligonucleotide immobilized at a preselected location in an array of immobilized oligonucleotides on a solid support.

6. The method of claim 4, wherein said nucleic acid sample...

... claim 6, wherein said target nucleic acid sequences are alleles of one another, the 3' portion of said primer is positioned immediately ... the preselected nucleic acid sequences is an oligonucleotide immobilized at a preselected location in an array of immobilized oligonucleotides .

11. The solid support of claim 8, wherein the length, base composition, and percentage of...

1/3,AB,K/11 (Item 2 from file: 654)
DIALOG(R)File 654:US Pat.Full.

03012564
Utility
OLIGONUCLEOTIDE CONSTRUCTS AND METHODS FOR THE GENERATION OF SEQUENCE SIGNATURES FROM NUCLEIC ACIDS

PATENT NO.: 5,962,221
ISSUED: October 05, 1999 (19991005)
INVENTOR(s): Caetano-Anolles, Gustavo, 1320 Beacon Hill La., Knoxville, TN
(Tennessee), US (United States of America), 37919
[Assignee Code(s): 68000]
EXTRA INFO: Assignment transaction [Reassigned], recorded September 5,

1995 (19950905)
APPL. NO.: 8-489,269
FILED: June 09, 1995 (19950609)

RELATED PATENT APPLICATIONS

This application is a continuation-in-part application of pending application Ser. No. 08-139,459 (the "second parent application"), filed Oct. 20, 1993, which is in turn a continuation-in-part application of application Ser. No. 08-006,380, (the "first parent application") filed Jan. 19, 1993 entitled "DNA Amplification Fingerprinting", which issued as U.S. Pat. No. 5,413,909 on May 9, 1995. Both parent applications are incorporated herein by reference.

FULL TEXT: 1231 lines

ABSTRACT

Novel oligonucleotides for amplification and profiling of nucleic acid templates are disclosed. Enhancements of nucleic acid fingerprinting methods are disclosed.

... In one embodiment, separation of DAF products by sequence polymorphism is performed by hybridization to oligonucleotide arrays which are bound to a solid support. The solid support may be any support which will maintain the structure of the oligonucleotides of the arrays and may be a membrane or glass or magnetic beads, for example.

The DAF technology...real time separation of amplification products such as by CE, or removed from a bound oligonucleotide in an oligonucleotide array , is useful to distinguish between closely related templates. Amplification products separated by length or by...suitable process for separation of DAF products by sequence polymorphism is by the use of oligonucleotide arrays bound to solid supports.

An amplified DAF sample is labelled and hybridized with a two-dimensional array of surface-bound oligonucleotides . Alternatively, the array can be composed of particles containing bound oligonucleotides. These particles may be beads. The beads and analyzed for positive hybridization signals.

The number of oligonucleotides in an array may vary from few to a few hundred or thousands, depending on the ability to...

...that alter the amplification with arbitrary primers or alter the ability to hybridize to the oligonucleotide probes of the array are expected to produce specific changes in the resulting "hybridization fingerprint". These changes are seen...

...through amplification with arbitrary oligonucleotide primers, the second through hybridization of amplified products with an array of short oligonucleotide primers. During the first step, a complex genome such as soybean or human (containing about...

... array will depend on the length of the hybridization probes and on the number of oligonucleotides in the array . For ...nucleotides in length. The unseparated DAF fragment products are permitted to anneal to the bound oligonucleotides in the array . Thus, because the DAF products will anneal to oligonucleotides based on the complementary sequences of...and could reveal similarities or differences between the nucleic acid hybridization profiles. The use of oligonucleotide arrays is described in Chetverin, " Oligonucleotide Arrays ", Biotechnology, 12:1093-1099 (1994), which is incorporated herein by reference.

The DAF methodology, including...decrease polymorphic content or target specific genomic regions. For example, primers were derived from sequence arrays in repetitive DNA , such as SSRs present in microsatellites. The advantage of targeting these highly polymorphic regions is...DAF Products by Hybridization

Amplification products generated by DAF can be analyzed by hybridization to oligonucleotide arrays . The array is composed of a group of oligonucleotide probes arranged in a two-dimensional manner on...

...rupture of the nucleic acids by physical means, such as by sonication or ultraviolet light.

Oligonucleotide arrays can be prepared in a number of ways. For example, oligonucleotides can be synthesized by...EM, Case-Green SC, Elder

JK, Johnson M, Mir KU, Wang L, Williams JC (1994), Arrays of
Complementary Oligonucleotides for Analysing the Hybridization Behavior
of Nucleic Acids. Nucleic Acids Res. 22:1368-1373.
Weaver...
... wherein the nucleotides constitute combinations of the known 4 bases of
DNA, and wherein the portion of the oligonucleotide primers other than
the 3' single stranded end extending from the double stranded stem contain
identical....
?
?logoff
24jul00 14:11:31 User233832 Session D245.6
$10.28 0.697 DialUnits File340
$1.75 1 Type(s) in Format 4 (UDF)
$1.75 1 Types
$12.03 Estimated cost File340
$2.15 0.473 DialUnits File348
$16.05 3 Type(s) in Format 5 (UDF)
$16.05 3 Types
$18.20 Estimated cost File348
$2.38 0.500 DialUnits File349
$25.50 5 Type(s) in Format 5 (UDF)
$25.50 5 Types
$27.88 Estimated cost File349
$4.52 0.765 DialUnits File654
$1.90 2 Type(s) in Format 4 (UDF)
$1.90 2 Types
$6.42 Estimated cost File654
OneSearch, 4 files, 2.436 DialUnits FileOS
$0.20 TYMNET
$64.73 Estimated cost this search
$97.82 Estimated total session cost 16.280 DialUnits

Status: Signed Off. (23 minutes)

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### Status: Path 1 of [Dialog Information Services via Modem]

### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID
pto-dialog)
Trying 3106900061...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ******** HHHHHHHH SSSSSSSS?
### Status: Signing onto Dialog
 ********
ENTER PASSWORD:
 ******** HHHHHHHH SSSSSSSS? ********
Welcome to DIALOG
### Status: Connected


Dialog level 00.06.30D

Last logoff: 19jul00 14:07:06
Logon file001 24jul00 13:48:41
*** ANNOUNCEMENT ***
NEW FILE RELEASED
***Prous Science Daily Essentials (Files 458, 459)
***WIPO/PCT Patents Fulltext (File 349)

UPDATING RESUMED
***GPO Monthly Catalog (File 66)
***Bridge World Markets News (File 609,809)
***Fort Worth Star-Telegram (File 427)
***Federal News Service (File 660)
***Kansas City Star (File 147)
***British Books in Print (File 430)

                ***
RELOADED
***Kompass Canada (File 594)
***Books in Print (File 470)
***Kompass Asia/Pacific (File 592)

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  OneSearch simply BEGIN FIRST for coverage from Dialog's
  broad spectrum of news wires.

   >>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
   >>>   of new databases, price changes, etc.     <<<
           ****
***                        ***

File  1:ERIC  1966-2000/Jul 22
      (c) format only 2000 The Dialog Corporation

    Set  Items  Description
    ---  -----  -----------
?s primer? ? (5n) portion  and arra???
         1159  PRIMER? ?
         4610  PORTION
            0  PRIMER? ?(5N)PORTION
         2275  ARRA???
    S1      0  PRIMER? ? (5N) PORTION  AND ARRA???
?begin 411
     24jul00 13:50:13 User233832 Session D245.1
        $0.46   0.132 DialUnits File1
    $0.46  Estimated cost File1
    $0.10  TYMNET
    $0.56  Estimated cost this search
    $0.56  Estimated total session cost   0.132 DialUnits

File 411:DIALINDEX(R)

DIALINDEX(R)
  (c) 2000 The Dialog Corporation plc

*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
?set files allchem allmed
   You have 201 files in your file list.
   (To see banners, use SHOW FILES command)
?C?s primer? ? (5n) portion  and arra??? and py<1996
>>>"C" command not valid in DIALINDEX.
??s primer? ? (5n) portion  and arra??? and py<1996
>>>Help is not available for SPRIMER?
??s  primer? ? (5n) portion  and arra??? and py<1996
>>>Help is not available for SPRIMER?
?begin 411
     24jul00 13:52:28 User233832 Session D245.2
        $0.21   0.171 DialUnits File411
    $0.21  Estimated cost File411
    $0.15  TYMNET
    $0.36  Estimated cost this search
    $0.92  Estimated total session cost   0.302 DialUnits

File 411:DIALINDEX(R)

DIALINDEX(R)
  (c) 2000 The Dialog Corporation plc

*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
?set files allchem allmed
   You have 201 files in your file list.
   (To see banners, use SHOW FILES command)
?s  primer? ? (5n) portion  and arra??? and py<1996

Your SELECT statement is:
```

s primer? ? (5n) portion and arra??? and py<1996

Items File
----- ----
Examined 50 files
3 340: CLAIMS(R)/US Patent_1950-00/Jul 14
14 348: European Patents_1978-2000/Jun W04
34 349: PCT Fulltext_1983-2000/UB=, UT=20000629
20 652: US Patents Fulltext_1971-1979
20 653: US Pat.Fulltext_1980-1989
11 654: US Pat.Full._1990-2000/Jul 18
1 88: Gale Group Business A.R.T.S._1976-2000/Jul 24
Examined 100 files
1 149: TGG Health&Wellness DB(SM)_1976-2000/Jul W3
1 180: Federal Register_1985-2000/Jul 21
Examined 150 files
Examined 200 files

9 files have one or more items; file list includes 201 files.
One or more terms were invalid in 38 files.

?save temp portion
>>>You must limit names to 1-6 characters when saving
>>>a DIALOG search.
?begin 88 1 340 348 349
24jul00 13:57:12 User233832 Session D245.3
$6.66 5.332 DialUnits File411
$6.66 Estimated cost File411
$0.25 TYMNET
$6.91 Estimated cost this search
$7.83 Estimated total session cost 5.634 DialUnits

SYSTEM:OS - DIALOG OneSearch
File 88:Gale Group Business A.R.T.S. 1976-2000/Jul 24
(c) 2000 The Gale Group
File 1:ERIC 1966-2000/Jul 22
(c) format only 2000 The Dialog Corporation
File 340:CLAIMS(R)/US Patent 1950-00/Jul 14
(c) 2000 IFI/CLAIMS(r)
File 348:European Patents 1978-2000/Jun W04
(c) 2000 European Patent Office
*File 348: ** NEW FEATURE ** English language translations of French
and German abstracts now searchable. See HELP NEWS 348 for info.
File 349:PCT Fulltext 1983-2000/UB=, UT=20000629
(c) 2000 WIPO/MicroPatent

Set Items Description
--- ----- -----------
?exs
>>>Nothing was SAVEd during this session. You must specify the name and/or
serial number of a previously saved SearchSave, e.g. EXS SA001.
?rd

>>>No sets currently exist.
? s primer? ? (5n) portion and arra??? and py<1996
Processing
51765 PRIMER? ?
1508544 PORTION
1855 PRIMER? ?(5N)PORTION
263861 ARRA???
7149675 PY<1996
S1 52 PRIMER? ? (5N) PORTION AND ARRA??? AND PY<1996
?rd
>>>Duplicate detection is not supported for File 340.
>>>Duplicate detection is not supported for File 348.
>>>Duplicate detection is not supported for File 349.

>>>Records from unsupported files will be retained in the RD set.
...examined 50 records (50)
...completed examining records
S2 52 RD (unique items)
?t s2/free/1-52

2/8/1 (Item 1 from file: 88)
01810873 SUPPLIER NUMBER: 04518230 (USE FORMAT 7 OR 9 FOR FULL TEXT)
A genetic approach to promoter recognition during trans induction of viral
gene expression.
Oct 3, 1986
WORD COUNT: 5509 LINE COUNT: 00566

2/8/2 (Item 1 from file: 340)
3232166 9938545
C/METHOD OF DETECTING AND DISCRIMINATING BETWEEN NUCLEIC ACID SEQUENCES;
ALLELE PRIMER COMPLEMENTARY TO A TARGET DNA SEQUENCE AND IMMOBILIZED TO
A SOLID SUPPORT; TOOL FOR DIAGNOSIS AND GENETIC ANALYSIS; DETECTION OF
GENETIC DISORDERS SUCH AS SICKLE CELL ANEMIA AND THALASEMIA

2/8/3 (Item 2 from file: 340)
1226725 1929388
M/SINGLE LEAD ELECTRICALLY-ACTIVATED FLASHLAMP

2/8/4 (Item 3 from file: 340)
1167931 1834835
M/FLASHLAMP ASSEMBLY UTILIZING DISPOSABLE FLASHLAMP ARTICLE

2/8/5 (Item 1 from file: 348)

00798303
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
INSECTICIDAL TOXINS FROM THE PARASITIC WASP BRACON HEBETOR
Insektentotende Toxine von der parasitischen Wespe Bracon Hebetor
TOXINES INSECTICIDES DE LA GUEPE PARASITE BRACON HEBETOR
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9929 196
CLAIMS B (German) 9929 190
CLAIMS B (French) 9929 218
SPEC B (English) 9929 4862
Total word count - document A 0
Total word count - document B 5466
Total word count - documents A + B 5466

2/8/6 (Item 2 from file: 348)
00727441
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Apparatus and method for determining the concentration of the target
nucleic acid in PCR
Gerat und Verfahren zur Bestimmung der Konzentration der Zielnukleinsaure
in PCR
Appareil et procede pour determiner la concentration de l'acide nucleique
de but dans le PCR
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPAB95 3928
SPEC A (English) EPAB95 9315
Total word count - document A 13243
Total word count - document B 0
Total word count - documents A + B 13243

2/8/7 (Item 3 from file: 348)
00711436
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Method of forming a resinous member on a glass-plate
Verfahren zum Formen eines Elementes aus Kunststoff auf einer Glasplatte
Procede de moulage d'un element resineux sur une plaque en verre
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9904 875
CLAIMS B (German) 9904 891
CLAIMS B (French) 9904 1038
SPEC B (English) 9904 5602
Total word count - document A 0
Total word count - document B 8406
Total word count - documents A + B 8406

2/8/8 (Item 4 from file: 348)
00655901
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
DNA analyzing method.
DNS-Analyse Verfahren.
Procede d'analyse d'ADN.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF2 731
SPEC A (English) EPABF2 6582
Total word count - document A 7313
Total word count - document B 0
Total word count - documents A + B 7313

2/8/9 (Item 5 from file: 348)
00573624
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Improved microsensor and method of manufacture.
Verbesserter Mikrosensor und Verfahren zur Herstellung.
Micro-capteur ameliore et procede de fabrication.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 1071
SPEC A (English) EPABF1 3203
Total word count - document A 4274
Total word count - document B 0
Total word count - documents A + B 4274

2/8/10 (Item 6 from file: 348)
00543284
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Method of characterising genomic DNA
Verfahren zur Charakterisierung genomischer DNA
Procede pour la caracterisation de l'ADN genomique
LANGUAGE (Publication,Procedural,Application): English; English;

English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9902 540
CLAIMS B (German) 9902 455
CLAIMS B (French) 9902 563
SPEC B (English) 9902 27693
Total word count - document A 0
Total word count - document B 29251
Total word count - documents A + B 29251

2/8/11 (Item 7 from file: 348)
00540867
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Nucleotide sequences
Nucleotidsequenzen
Sequences de nucleotides
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9806 529
CLAIMS B (German) 9806 516
CLAIMS B (French) 9806 554
SPEC B (English) 9806 14707
Total word count - document A 0
Total word count - document B 16306
Total word count - documents A + B 16306

2/8/12 (Item 8 from file: 348)
00508695
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
production and use of transgenic non-human animals capable of producing
heterologous antibodies
Produktion und Nutzung nicht-menschliche transgentiere zur Produktion
heterologe Antikorper
production et utilisation des animaux non humains transgeniques capable de
produire des anticorps heterologues
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9709W1 341
CLAIMS B (German) 9709W1 358
CLAIMS B (French) 9709W1 427
SPEC B (English) 9709W1 30591
Total word count - document A 0
Total word count - document B 31717
Total word count - documents A + B 31717

2/8/13 (Item 9 from file: 348)
00506490
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
GENOMIC MAPPING METHOD BY DIRECT HAPLOTYPING USING INTRON SEQUENCE ANALYSIS
GENOMISCHE GENKARTIERUNGSMETHODE DURCH DIREKTEN NACHWEIS VON HAPLOTYPEN
MITTELS INTRONSEQUENZANALYSE
PROCEDE DE CARTOGRAPHIE GENOMIQUE PAR IDENTIFICATION DIRECTE D'HAPLOTYPES
PAR L'ANALYSE DE SEQUENCES D'INTRONS
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9940 929
CLAIMS B (German) 9940 911
CLAIMS B (French) 9940 1001
SPEC B (English) 9940 17187
Total word count - document A 0
Total word count - document B 20028
Total word count - documents A + B 20028

2/8/14 (Item 10 from file: 348)
00488730
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Optical fiber PH microsensor and method of manufacture.
PH-optischer Fasermikrosensor und Verfahren zur Herstellung.
Microcapteur de PH a fibre optique et procede de fabrication.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 717
SPEC A (English) EPABF1 2342
Total word count - document A 3059
Total word count - document B 0
Total word count - documents A + B 3059

2/8/15 (Item 11 from file: 348)
00486504
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Optical fiber sensor and method of manufacture.
Optischer Fasersensor und Herstellungsverfahren.
Senseur a fibre optique et procede de fabrication.
LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 538
SPEC A (English) EPABF1 2054
Total word count - document A 2592
Total word count - document B 0
Total word count - documents A + B 2592

2/8/16 (Item 12 from file: 348)
00467154
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Primers and probes for nucleic acid detection.
Primers und Sonden zum Nachweis von Nukleinsauren.
"Primers" et sondes pour detecter des acides nucleiques.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 402
SPEC A (English) EPABF1 10821
Total word count - document A 11223
Total word count - document B 0
Total word count - documents A + B 11223

2/8/17 (Item 13 from file: 348)
00451942
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
NEUROTROPHIN-3, A NOVEL NEUROTROPHIC FACTOR RELATED TO NERVE GROWTH FACTOR
AND BRAIN DERIVED NEUROTROPHIC FACTOR
NEUROTROPHIN-3, EIN NEUER NEUROTROPISCHER FAKTOR VERWANDT MIT DEM
NERVENWACHSTUMSFAKTOR UND VOM GEHIRN STAMMENDER NEUROTROPISCHER FAKTOR
NEUROTROPHINE-3, UN NOUVEAU FACTEUR NEUROTROPHIQUE RELATIF A LA CROISSANCE
DES NERFS ET FACTEUR NEUROTROPHIQUE DERIVE DU CERVEAU
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) EPAB97 1939
CLAIMS B (German) EPAB97 1995
CLAIMS B (French) EPAB97 2314
SPEC B (English) EPAB97 21129
Total word count - document A 0
Total word count - document B 27377
Total word count - documents A + B 27377

2/8/18 (Item 14 from file: 348)
00302442
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
A modified gamma interferon dna sequences encoding it and process for
producing it.
Modifiziertes Gamma-Interferon, DNS-Sequenzen, die dieses kodieren, sowie
Verfahren zu dessen Herstellung.
Interferon gamma modifie, sequences d'ADN codant pour celui-ci et ses
procedes de production.
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 731
SPEC A (English) EPABF1 5441
Total word count - document A 6172
Total word count - document B 0
Total word count - documents A + B 6172

2/8/19 (Item 1 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00403449
POLYCYSTIC KIDNEY DISEASE 1 GENE AND USES THEREOF
GENE 1 DE LA POLYKYSTOSE RENALE ET UTILISATIONS DUDIT GENE
Main International Patent Class: C12N-015/12;
International Patent Class: C07K-014/47; C12N-005/10; A61K-048/00;
G01N-033/68; C12Q-001/68; C07K-016/18;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 24038

2/8/20 (Item 2 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00400748
HEPATITIS G VIRUS AND MOLECULAR CLONING THEREOF
VIRUS DE L'HEPATITE G ET SON CLONAGE MOLECULAIRE
Main International Patent Class: C12N-015/40;
International Patent Class: C07K-014/18; A61K-039/29; G01N-033/576;
C12Q-001/68; C12Q-001/70;
Publication Language: English
Fulltext Availability:
Detailed Description

Claims
Fulltext Word Count: 102273

2/8/21 (Item 3 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00400201
NOVEL ENZYMATIC RNA MOLECULES
NOUVELLES MOLECULES ENZYMATIQUES D'ARN
Main International Patent Class: C12N-015/52;
International Patent Class: C12N-009/00; A61K-031/70;
C12Q-001/68;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 53276

2/8/22 (Item 4 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00394153
CARTRIDGE WITH A PLURALITY OF PRIMER CHARGES DISPENSED AROUND THE
LONGITUDINAL AXIS OF THE CARTRIDGE
CARTOUCHE CHARGEE D'UNE PLURALITE D'AMORCES REPARTIES AUTOUR DE SON AXE
LONGITUDINAL
Main International Patent Class: F42B-005/045;
International Patent Class: F42C-019/08;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 3477

2/8/23 (Item 5 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00390692
FK-506 CYTOSOLIC BINDING PROTEIN
PROTEINE CYTOSOLIQUE SE FIXANT SUR LE FK-506
Main International Patent Class: C07K-014/47;
International Patent Class: C07K-017/00; C07K-016/18;
C07K-016/40;
C12N-015/12; C12N-015/61; C12N-015/64; C12N-005/10;
C12N-001/19;
C12N-001/21; G01N-033/566;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 16976

2/8/24 (Item 6 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00381205
IN VITRO PEPTIDE AND ANTIBODY DISPLAY LIBRARIES
BANQUES DE PRESENTATION DE PEPTIDES ET D'ANTICORPS IN VITRO
Main International Patent Class: C07K-016/00;
International Patent Class: C12P-021/08;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 27590

2/8/25 (Item 7 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00376263
INTRON-MEDIATED RECOMBINANT TECHNIQUES AND REAGENTS
TECHNIQUES ET REACTIFS DE RECOMBINAISON PAR INTRONS
Main International Patent Class: C12N-015/10;
International Patent Class: C12N-015/11; C12N-015/12;
C12N-015/31;
C12P-021/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 26716

2/8/26 (Item 8 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00375853
A METHOD OF NUCLEIC ACID SEQUENCING
PROCEDE DE SEQUENCAGE D'ACIDES NUCLEIQUES
Main International Patent Class: C12Q-001/68;
International Patent Class: C12P-019/34;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 14710

2/8/27 (Item 9 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00373128
MARKERS FOR DETECTION OF CHROMOSOME 16 REARRANGEMENTS
MARQUEURS UTILISES POUR LA DETECTION DE REARRANGEMENT DU CHROMOSOME 16
Main International Patent Class: C07H-021/02;
International Patent Class: C07H-021/04; C12Q-001/70; C12P-019/34;
G01N-033/53; C07K-015/26; C07K-015/28;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 20901

2/8/28 (Item 10 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00356864
AMPLIFIED DNA FINGERPRINTING METHOD FOR DETECTING GENOMIC VARIATION
PROCEDE D'ANALYSE D'EMPREINTE D'ADN AMPLIFIE PERMETTANT DE DETECTER LES VARIATIONS DU GENOME
Main International Patent Class: C12Q-001/68;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 4427

2/8/29 (Item 11 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00355261
NF-ATp, A T LYMPHOCYTE DNA-BINDING PROTEIN
PROTEINE DE LIAISON D'ADN DE LYMPHOCYTE T ACTIVE, NF-ATp
Main International Patent Class: C07K-013/00;
International Patent Class: C07K-015/28; C12N-001/21; C12N-005/10;
C12N-015/10; C12N-015/11; C12N-015/19; C12N-015/64; C12Q-001/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 20756

2/8/30 (Item 12 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00351058
OLIGOPROBE DESIGNSTATIONS: A COMPUTERIZED METHOD FOR DESIGNING OPTIMAL OLIGONUCLEOTIDE PROBES AND PRIMERS
POSTE DE CONCEPTION D'OLIGOSONDE: PROCEDE INFORMATISE DE CONCEPTION D'AMORCES ET DE SONDES OLIGONUCLEOTIDIQUES OPTIMALES
Main International Patent Class: G06F-015/42;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 21359

2/8/31 (Item 13 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00350845
IDENTIFICATION OF NEOPLASMS BY DETECTION OF GENETIC INSERTIONS AND DELETIONS
IDENTIFICATION DE NEOPLASMES PAR DETECTION DES INSERTIONS ET DELETIONS GENETIQUES
Main International Patent Class: C12Q-001/68;
International Patent Class: C07H-021/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 14771

2/8/32 (Item 14 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00350844
POSITIONAL SEQUENCING BY HYBRIDIZATION
SEQUENCAGE PAR HYBRIDATION POSITIONNELLE
Main International Patent Class: C12Q-001/68;
International Patent Class: C12P-019/34; C07H-021/04; G01N-033/48;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 23167

2/8/33 (Item 15 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00342248

GENE DETECTION SYSTEM
SYSTEME DE DETECTION DE GENE
Main International Patent Class: C12Q-001/68;
International Patent Class: C12P-019/34; C07H-021/04;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 45131

2/8/34 (Item 16 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00341016
SHOCK PULSE COUPLING ARRANGEMENT
DISPOSITIF DE COUPLAGE D'ONDE DE CHOC
Main International Patent Class: F42D-001/04;
International Patent Class: B60R-021/26; F42B-003/22;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 3432

2/8/35 (Item 17 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00338398
A METHOD OF DETECTING AND DISCRIMINATING BETWEEN NUCLEIC ACID SEQUENCES
PROCEDE DE DETECTION DE SEQUENCES D'ACIDE NUCLEIQUE ET DE DISCRIMINATION
ENTRE CES SEQUENCES
Main International Patent Class: C07H-015/12;
International Patent Class: C12N-015/10; C12P-019/34;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 5662

2/8/36 (Item 18 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00333481
ENCODED COMBINATORIAL CHEMICAL LIBRARIES
BIBLIOTHEQUES CHIMIQUES COMBINATOIRES CODEES
Main International Patent Class: C12Q-001/70;
International Patent Class: C07K-005/00; C07K-013/00; G01N-033/53;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 21935

2/8/37 (Item 19 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00333369
OLIGONUCLEOTIDE LIBRARIES USEFUL FOR PRODUCING PRIMERS
BIBLIOTHEQUES D'OLIGONUCLEOTIDES UTILES POUR LA PRODUCTION D'AMORCES
Main International Patent Class: C07H-021/04;
International Patent Class: C12P-019/34;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 20224

2/8/38 (Item 20 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00328052
PROTECTIVE EFFECTS OF MUTATED SUPERANTIGENS
EFFETS PROTECTEURS DE SUPERANTIGENES AYANT SUBI UNE MUTATION
Main International Patent Class: A01N-037/18;
International Patent Class: A61K-037/00; A61K-039/02; C07K-003/00;
C07K-013/00; C07K-015/00; C07K-017/00; C12N-005/00; C12N-015/00;
C12P-021/04; C12P-021/06; C12Q-001/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 10827

2/8/39 (Item 21 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00326045
VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC
RESPONSES BY SPECIFIC T CELL POPULATIONS
VACCINATION ET PROCEDES CONTRE DES MALADIES RESULTANT DE REPONSES
PATHOGENES DE POPULATIONS DE LYMPHOCYTES T SPECIFIQUES
Main International Patent Class: A61K-039/00;
International Patent Class: G01N-033/569; A61K-047/48;

A61K-048/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 17788

2/8/40 (Item 22 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00308236
HETERODIMERIC RECEPTOR LIBRARIES USING PHAGEMIDS
BANQUES DE RECEPTEURS HETERODIMERES UTILISANT DES PHAGEMIDES
Main International Patent Class: C12N-007/01;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 51788

2/8/41 (Item 23 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00306420
GENETICALLY ENGINEERED VACCINE STRAIN
SOUCHE DE VACCIN MISE AU POINT PAR GENIE GENETIQUE
Main International Patent Class: C12N-007/00;
International Patent Class: C12N-015/00; C12P-021/06; A61K-039/12;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 118467

2/8/42 (Item 24 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00303227
VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL POPULATIONS
VACCINATION ET PROCEDES DE LUTTE CONTRE DES MALADIES CAUSEES PAR DES REACTIONS PATHOGENES DE POPULATIONS DE LYMPHOCYTES T
Main International Patent Class: C07K-007/00;
International Patent Class: A61K-039/00; G01N-033/569; C12Q-001/68; A61K-039/395;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 19417

2/8/43 (Item 25 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00300506
IN-SITU HYBRIDIZATION PROBES FOR IDENTIFICATION AND BANDING OF SPECIFIC HUMAN CHROMOSOMES AND REGIONS
SONDES D'HYBRIDATION IN SITU SERVANT A L'IDENTIFICATION ET AU MARCAGE PAR BANDES DES CHROMOSOMES ET REGIONS CHROMOSOMIQUES SPECIFIQUES CHEZ L'HOMME
Main International Patent Class: C12N-015/10;
International Patent Class: C12Q-001/68;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 15247

2/8/44 (Item 26 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00294465
METHODS FOR PRODUCING ACYLOXYACYL HYDROLASE
PROCEDES DE PRODUCTION D'HYDROLASE D'ACYLOXYACYLE
Main International Patent Class: C12N-015/00;
International Patent Class: C12N-015/55; C12N-015/79; A61K-037/54;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 21012

2/8/45 (Item 27 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00294059
TRANSGENIC NON-HUMAN ANIMALS CAPABLE OF PRODUCING HETEROLOGOUS ANTIBODIES
ANIMAUX NON HUMAINS TRANSGENIQUES CAPABLES DE PRODUIRE DES ANTICORPS HETEROLOGUES
Main International Patent Class: A01H-001/00;

International Patent Class: C07H-021/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 38535

2/8/46 (Item 28 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00291135
GENOMIC MAPPING METHOD BY DIRECT HAPLOTYPING USING INTRON SEQUENCE ANALYSIS
PROCEDE DE CARTOGRAPHIE GENOMIQUE PAR IDENTIFICATION DIRECTE D'HAPLOTYPES
PAR L'ANALYSE DE SEQUENCES D'INTRONS
Main International Patent Class: C12Q-001/68;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 19605

2/8/47 (Item 29 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00273468
NEUROTROPHIN-3, A NOVEL NEUROTROPHIC FACTOR RELATED TO NERVE GROWTH FACTOR
AND BRAIN DERIVED NEUROTROPHIC FACTOR
NEUROTROPHINE-3, UN NOUVEAU FACTEUR NEUROTROPHIQUE RELATIF A LA CROISSANCE
DES NERFS ET FACTEUR NEUROTROPHIQUE DERIVE DU CERVEAU
Main International Patent Class: C12P-021/00;
International Patent Class: C12N-015/00; C12Q-001/00; C07H-015/12;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 28771

2/8/48 (Item 30 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00268595
CO-EXPRESSION OF HETEROMERIC RECEPTORS
COEXPRESSION DE RECEPTEURS HETEROMERES
Main International Patent Class: C12Q-001/70;
International Patent Class: C12Q-001/68; C12P-019/34; C12N-015/00; C12Q-001/02;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 15091

2/8/49 (Item 31 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00253781
DETERMINING DNA SEQUENCES BY MASS SPECTROMETRY
DETERMINATION DE SEQUENCES D'ADN PAR SPECTROMETRIE DE MASSE
Main International Patent Class: C12Q-001/68;
International Patent Class: C07H-019/00;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 10311

2/8/50 (Item 32 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00213537
A MODIFIED GAMMA INTERFERON, DNA SEQUENCES ENCODING IT AND PROCESSES FOR
PRODUCING IT
INTERFERON GAMMA MODIFIE, SEQUENCES D'ADN CODANT POUR CELUI-CI E T SES
PROCEDES DE PRODUCTION
Main International Patent Class: C12N-015/00;
International Patent Class: C07H-021/04; C12P-021/02; A61K-045/02;
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 7094

2/8/51 (Item 33 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00211115
THE MANUFACTURE AND EXPRESSION OF GENES FOR THAUMATIN
PRODUCTION ET EXPRESSION DES GENES DE CODAGE DE LA THAUMATINE
Main International Patent Class: C12P-021/00;
Publication Language: English
Fulltext Availability:

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 Detailed Description
 Claims
Fulltext Word Count: 13192


 2/8/52    (Item 34 from file: 349)
DIALOG(R)File 349:(c) 2000 WIPO/MicroPatent. All rts. reserv.

00210500
OLIGONUCLEOTIDE POLYMERIC SUPPORT SYSTEM
SYSTEME DE SUPPORT POLYMERE D'OLIGONUCLEOTIDES
Main International Patent Class: C07H-015/12;
International Patent Class: C07H-017/00;
Publication Language: English
Fulltext Availability:
 Detailed Description
 Claims
Fulltext Word Count: 10021
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       $0.00  1 Types
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   $0.30  Estimated cost File1
      $11.81   0.801 DialUnits File340
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       $0.00  3 Types
  $11.81  Estimated cost File340
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       $0.00  14 Types
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       $2.06   0.434 DialUnits File349
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       $0.00  34 Types
   $2.06  Estimated cost File349
       OneSearch, 5 files,  1.896 DialUnits FileOS
   $0.30  TYMNET
   $17.07  Estimated cost this search
   $24.90  Estimated total session cost   7.530 DialUnits

File 411:DIALINDEX(R)

DIALINDEX(R)
  (c) 2000 The Dialog Corporation plc

*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
?set files allmed allchem
  You have 201 files in your file list.
  (To see banners, use SHOW FILES command)
?s  primer? ? (5n) portion  and arra??? (5n) (DNA or nucleotide? ? or
oligonucleotide? ?) and py<1996
Your SELECT statement is:
  s  primer? ? (5n) portion  and arra??? (5n) (DNA or nucleotide? ? or
oligonucleotide? ?) and py<1996

       Items  File
       -----  ----
    Examined  50 files
    Examined 100 files
         1  340: CLAIMS(R)/US Patent_1950-00/Jul 14
         3  348: European Patents_1978-2000/Jun W04
         5  349: PCT Fulltext_1983-2000/UB=, UT=20000629
    Examined 150 files
Processing
         2  654: US Pat.Full._1990-2000/Jul 18
    Examined 200 files

  4 files have one or more items; file list includes 201 files.
  One or more terms were invalid in 38 files.

?save temp protion
>>>You must limit names to 1-6 characters when saving
>>>a DIALOG search.
?save temp port
Temp SearchSave "TDPORT" stored
?begin hits
    24jul00 14:08:03 User233832 Session D245.5
       $7.89   6.314 DialUnits File411
   $7.89  Estimated cost File411
   $0.30  TYMNET
   $8.19  Estimated cost this search
  $33.09  Estimated total session cost  13.844 DialUnits


SYSTEM:OS  - DIALOG OneSearch
 File 340:CLAIMS(R)/US Patent  1950-00/Jul 14
      (c) 2000 IFI/CLAIMS(r)
 File 348:European Patents  1978-2000/Jun W04
      (c) 2000 European Patent Office
*File 348: ** NEW FEATURE ** English language translations of
French
and German abstracts now searchable.  See HELP NEWS 348 for info.
 File 349:PCT Fulltext  1983-2000/UB=, UT=20000629
      (c) 2000 WIPO/MicroPatent
 File 654:US Pat.Full.  1990-2000/Jul 18
      (c) format only 2000 The Dialog Corp.
*File 654: Reassignment data current through 12/06/1999 recordings.
Due to recent processing problems, the SORT command is not
working.

    Set  Items  Description
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?exs
Executing TDPORT
>>>SET HILIGHT: use ON, OFF, or 1-5 characters
Processing
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Processing
67814 PRIMER? ?
2239602 PORTION
2939 PRIMER? ?(5N)PORTION
380481 ARRA???
103228 DNA
76021 NUCLEOTIDE? ?
48966 OLIGONUCLEOTIDE? ?
3048 ARRA???(5N)((DNA OR NUCLEOTIDE? ?) OR OLIGONUCLEOTIDE? ?)
4308378 PY<1996
S1 11 PRIMER? ? (5N) PORTION AND ARRA??? (5N) (DNA OR NUCLEOTIDE? ? OR OLIGONUCLEOTIDE? ?) AND PY<1996
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>>>Duplicate detection is not supported for File 340.
>>>Duplicate detection is not supported for File 348.
>>>Duplicate detection is not supported for File 349.
>>>Duplicate detection is not supported for File 654.
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>>>Set 2 does not exist
?t s1/3,ab,k/1-11

1/3,AB,K/1 (Item 1 from file: 340)
DIALOG(R)File 340:CLAIMS(R)/US Patent
(c) 2000 IFI/CLAIMS(r). All rts. reserv.

Dialog Acc No: 3232166 IFI Acc No: 9938545
Document Type: C
METHOD OF DETECTING AND DISCRIMINATING BETWEEN NUCLEIC ACID SEQUENCES;
ALLELE PRIMER COMPLEMENTARY TO A TARGET DNA SEQUENCE AND IMMOBILIZED TO A
SOLID SUPPORT; TOOL FOR DIAGNOSIS AND GENETIC ANALYSIS; DETECTION OF
GENETIC DISORDERS SUCH AS SICKLE CELL ANEMIA AND THALASEMIA
Inventors: Wallace R Bruce (US)
Assignee: City of Hope Assignee Code: 23857
Patent (No,Date), Applic (No,Date)
US 5981176 19991109 US 94193039 19940204
Calculated Expiration: 20161109
PCT Information:
Publication Number: WO 9325563 Issue Date: 19931223
Application Number: WO 92US5133 Application Date: 19920617
Section 371 Filing Date: 19940204
Section 102(e) Date: 19940204
Priority Applic(No,Date): US 94193039 19940204

Abstract:
The present invention is directed to a method for detecting the presence or absence of any specific target nucleic acid sequence contained in a sample.
The target sequence can be present in the sample in a relatively pure form
or as a component of a member of a mixture of different nucleic acids. The
method of the invention utilizes a novel primer design. The sequence of the
novel primer is composed of two portions, the 3' portion is a primer specific for the desired nucleic acid sequence and the 5' portion is complementary to preselected nucleic acid sequence. Extension of the 3'
portion of the primer with a labeled deoxynucleosides triphosphate yields a labeled extension product if, but only if, the template includes the target sequence. The labeled extension product is detected by hybridization of the 5' portion to the preselected sequence. The preselected sequence is preferably bound to a solid support as one member
of a grid having a group of sequences.

PCT Information:
... Publication Number: 19931223

Abstract:
...primer design. The sequence of the novel primer is composed of two portions, the 3' portion is a primer specific for the desired nucleic acid sequence and the 5' portion is complementary to preselected nucleic
acid sequence. Extension of the 3' portion of the primer with a labeled deoxynucleosides triphosphate yields a labeled extension product if, but
only if, the...
Exemplary Claim:
D R A W I N G

1. An allele specific primer having a 3' portion and a 5' portion wherein said 3' portion is complementary to a target sequence adjacent
...
Non-exemplary Claims:
...the preselected nucleic acid sequence is an oligonucleotide immobilized
at a preselected location in an array of immobilized oligonucleotides on a solid support...

...nucleic acid sample which may include a target nucleic acid sequence,
(ii) an allele specific primer having a 3' portion and a 5' portion wherein said 3' portion is complementary to a target nucleic acid...

...the preselected nucleic acid sequence is an oligonucleotide immobilized
at a preselected location in an array of immobilized oligonucleotides on a solid support...

...claim 6, wherein said target nucleic acid sequences are alleles of one another, the 3' portion of said primer is positioned immediately adjacent to the variant nucleotide responsible for the allelism, and said primer...

...the preselected nucleic acid sequences is an oligonucleotide immobilized at a preselected location in an array of immobilized oligonucleotides .

1/3,AB,K/2 (Item 1 from file: 348)
DIALOG(R)File 348:European Patents

00655901
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
DNA analyzing method.
DNS-Analyse Verfahren.
Procede d'analyse d'ADN.
PATENT ASSIGNEE:
HITACHI, LTD., (204144), 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo 100, (JP), (applicant designated states: DE;GB)
INVENTOR:
Kambara, Hideki, 1-4-3, Kitanodai, Hachiouji-shi, Tokyo 192, (JP)
Okano, Kazunori, 5-17-2-402, Hon-cho, Shiki-shi, Saitama-ken 353, (JP)
Takahashi, Satoshi, Nr. 202, Dai-12 Shin'ei-manshon, 1-5-17, Nishi, Kunitachi-shi, Tokyo 186, (JP)
Nagai, Keiichi, 3-44-14, Sakuragaoka, Higashiyamato-shi, Tokyo 207, (JP)
Kawamoto, Kazuko, Nr. 309, Hitachi Ozaki-haitsu, 3-8-9, Higashi-koigakubo , Kokubunji-shi, Tokyo 185, (JP)
Furuyama, Hiroko, Nr. 110, Hitachi Ozaki-haitsu, 3-8-9, Higashi-koigakubo , Kokubunji-shi, Tokyo 185, (JP)
LEGAL REPRESENTATIVE:
Strehl Schubel-Hopf Groening & Partner (100941), Maximilianstrasse 54, D-80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 630972 A2 941228 (Basic)
EP 630972 A3 951129
APPLICATION (CC, No, Date): EP 94109745 940623;
PRIORITY (CC, No, Date): JP 93155534 930625; JP 93189624 930730
DESIGNATED STATES: DE; GB
RELATED DIVISIONAL NUMBER(S) - PN (AN):
(EP 99124555)
INTERNATIONAL PATENT CLASS: C12Q-001/68;

ABSTRACT EP 630972 A2
A DNA analyzing method which bonds the oligomer of the known base sequence to the DNA fragment obtained by digesting sample 1 with restrictive enzyme, causes hybridization between oligomer 3 and DNA fragment using the oligomers 3 which have the sequences of all combinations of the types of the bases within the length of several bases following the known base sequence, checks presence or absence of the hybridization or complementary DNA strand extension, identifies the DNA fragment terminal sequence from this result, and fractionates the DNA fragments and analyzes them or analyzes them as they are. This DNA analyzing method provides an effective analysis of mixtures of long DNAs or DNA fragments.
ABSTRACT WORD COUNT: 114

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF2 731
SPEC A (English) EPABF2 6582
Total word count - document A 7313
Total word count - document B 0
Total word count - documents A + B 7313

ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348

...SPECIFICATION strict and a fraction can contain several DNA fragment species. In addition to gel electrophoresis, DNA probe array , liquid chromatograph or affinity chromatograph can be used as the separation means. When the amount...

...bonding, so when reaction temperature is increased, stability is maintained at the 3' terminal sequence portion of the primer only for the fragments having the sequence where hybridization exhibits a complete agreement, and, in...invention, and the DNA probe has the enzyme recognizing sequence 5 (cuting cites), the universal primer portion of 6 being common sequence among DNA probes and the addition sequence portion 7 to...fractionation method as shown in Fig. 5 is also available. That uses plural of linear DNA probe array comprising thin plates. Each probe array has many cells holding different oligomer probes, respectively, however, only one cell per array is used to fractionate DNA at a time. Each probe array can be separated for fractionating the DNA hold in the cell. For this purpose, one...

...prepared and are laid out superimposed by shifting the position of

more
than one liner DNA probe array 17 to the direction where separated cells are laid out. The flow channel 18 for...

...DNA fragment are fixed, the two-dimensional probe array composed by more
than one linear DNA probe array 17 arranged in two dimensions is analyzed and inspected in advance, using the device as...the same sequence of the 3' terminal of the unknown sequence portion, for example.
The portion 128 in the primer , which is hybridized with the known sequence portion of the 3' terminal of the DNA...made, resulting enhanced
selectivity.
Making DNA have the known sequence portion and the unknown sequence
portion and using the selection primer according to the above principle, we performed base sequencing operation normally used as described below...

...CLAIMS the vicinity of the terminals of said DNA fragments are recognized with the oligomer fixed array sensor.
4. A DNA analyzing method according to Claim 3, wherein, said array
sensor in the process ii) comprises...

...line sensors in which each of oligomers having various sequence is immobilized in a cell arrayed linearly.
5. A DNA analyzing method according to any of the Claims 1, 3 and 4,
which includes, between...

...DNA fragment including, at least, part of the known base sequence and
oligomer on the array sensor.
7. A DNA analyzing method according to Claim 6, wherein, in said process step ii), the base sequence...

...in said process ii), allows detection of the presence or absence of hybridization between said DNA fragment and oligomer on the array
sensor, recognition of the base sequence at the terminal of the DNA fragment according to the result, and fractionation, separate taking or analysis of said DNA fragment on the array sensor.
9. A DNA analyzing method according to Claim 7, wherein said base
sequence c) has a length of...

...known base sequence at the terminals of said DNA fragments is recognized
on a fixed array sensor.
12. A DNA analyzing method comprising A) a process step of digesting
double stranded DNA, B) a process...

1/3,AB,K/3 (Item 2 from file: 348)
DIALOG(R)File 348:European Patents

00543284
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
Method of characterising genomic DNA
Verfahren zur Charakterisierung genomischer DNA
Procede pour la caracterisation de l'ADN genomique
PATENT ASSIGNEE:
ZENECA LIMITED, (1579441), 15 Stanhope Gate, London W1Y 6LN, (GB),
(applicant designated states:
AT;BE;CH;DE;DK;ES;FR;GR;IE;IT;LI;LU;MC;NL;PT;SE)
INVENTOR:
Jeffreys, Alec John, University of Leicester, Adrian Building, University
Road, Leicester, GB-LEI 7RH, (GB)
LEGAL REPRESENTATIVE:
Phillips, Neil Godfrey Alasdair et al (62643), Astra Zeneca PLC Global
Intellectual Property Mereside Alderley Park, Macclesfield Cheshire SK10 4TG, (GB)
PATENT (CC, No, Kind, Date): EP 530009 A2 930303 (Basic)
EP 530009 A3 931103
EP 530009 B1 990113
APPLICATION (CC, No, Date): EP 92307768 920826;
PRIORITY (CC, No, Date): GB 9118371 910827; GB 9119089 910906; GB 9124636
911120; GB 9207379 920403; GB 9212627 920615; GB 9212881 920617
DESIGNATED STATES (Pub A): AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; (Pub B): AT; BE; CH; DE; DK; ES; FR; GR; IE; IT; LI;
LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: C12Q-001/68;

ABSTRACT EP 530009 A2
A method of characterising a test sample of genomic DNA which method
comprises amplifying a tandemly repeated region, comprising more than one
type of repeat unit, as far as internal repeat units of a specific type so as to generate a set of amplification products which identify the relative positions of the internal repeat units within the tandemly repeated region, and separating the set of amplification products to provide a sample code. The sample codes are suitable for computerised
storage on, and retrieval from, a database. The invention also provides a
novel method for the detection of diagnostic base sequences in one or more nucleic acids contained in a sample. (see image in original document)

ABSTRACT WORD COUNT: 117

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS B (English) 9902 540
CLAIMS B (German) 9902 455
CLAIMS B (French) 9902 563
SPEC B (English) 9902 27693
Total word count - document A 0
Total word count - document B 29251
Total word count - documents A + B 29251

ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348

...SPECIFICATION sequence. The TAG primer is rich in G+C residues relative
to the ex-TAG portion of the control PCR primers . This second PCR reaction is performed at a high annealing temperture which prevents the
action...AluI digestion of PCR products containing the site. The flanking
region extending into the minisatellite array was amplified from total genomic DNA using 31-Tag-A at high concentration plus flanking primer
31A. Because of the primer...

1/3,AB,K/4 (Item 3 from file: 348)
DIALOG(R)File 348:European Patents
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00302442
ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348
A modified gamma interferon dna sequences encoding it and process for
producing it.
Modifiziertes Gamma-Interferon, DNS-Sequenzen, die dieses kodieren, sowie
Verfahren zu dessen Herstellung.
Interferon gamma modifie, sequences d'ADN codant pour celui-ci et ses
procedes de production.
PATENT ASSIGNEE:
BIOGEN, INC., (1049451), 14 Cambridge Center, Cambridge Massachusetts
02142, (US), (applicant designated states:
AT;BE;CH;DE;FR;GB;LI;LU;NL;SE)
INVENTOR:
ALLET Bernard, rue de Bossones, 20, 1213 Onex, (CH)
LEGAL REPRESENTATIVE:
Bannerman, David Gardner et al (28001), Withers & Rogers 4 Dyer's Buildings Holborn, London, EC1N 2JT, (GB)
PATENT (CC, No, Kind, Date): EP 318765 A1 890607 (Basic)
APPLICATION (CC, No, Date): EP 88119117 850316;
PRIORITY (CC, No, Date): GB 8406910 840316; GB 8413297 840524
DESIGNATED STATES: AT; BE; CH; DE; FR; GB; LI; LU; NL; SE
RELATED PARENT NUMBER(S) - PN (AN):
EP 174999
INTERNATIONAL PATENT CLASS: C12N-015/00; C07H-021/04; C12P-021/02;
A61K-045/02;

ABSTRACT EP 318765 A1
An amino-(DELTA)3-gamma interferon, DNA sequences encoding it, and
methods of producing it. This amino-(DELTA)3-gamma interferon is soluble,
easily purifiable, highly stable and has at least a substantially similar level of biological activity as mature IFN-(gamma).

ABSTRACT WORD COUNT: 39

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language Update Word Count
CLAIMS A (English) EPABF1 731
SPEC A (English) EPABF1 5441
Total word count - document A 6172
Total word count - document B 0
Total word count - documents A + B 6172

ORDER fax of complete patent from Dialog SourceOne. See HELP ORDER 348

...SPECIFICATION the following detailed description is set forth.
In the description, the following terms are employed:
DNA Sequence -- A linear array of nucleotides connected one to the other by phosphodiester bonds between the 3(min) and 5(min...the synthesis of a DNA sequence lacking those 9-nucleotides.
We hybridized the above-described primer to the single-standed DNA
portion of our renatured DNA, described above (Step (d), Figure 2). We
affected this hybridization in...

1/3,AB,K/5 (Item 1 from file: 349)
DIALOG(R)File 349:PCT Fulltext
(c) 2000 WIPO/MicroPatent. All rts. reserv.

00400748
HEPATITIS G VIRUS AND MOLECULAR CLONING THEREOF
VIRUS DE L'HEPATITE G ET SON CLONAGE MOLECULAIRE
Patent Applicant/Assignee:
GENELABS TECHNOLOGIES INC

Inventor(s):
KIM Jungsuh P
FRY Kirk E
YOUNG Lavonne Marie
LINNEN Jeffrey M
WAGES John
Patent and Priority Information (Country, Number, Date):
Patent: WO 9532291 A2-A3 19951130
Application: WO 95US6169 19950519 (PCT/WO US9506169)
Priority Application: US 94246985 19940520; US 94285543 19940803; US
94285558 19940803; US 94329729 19941026; US 94344271 19941123; US
94357509 19941216; US 95389886 19950215
Designated States: AM; AT; AU; BB; BG; BR; BY; CA; CH; CN; CZ; DE; DK; EE;
ES; FI; GB; GE; HU; JP; KE; KG; KP; KR; LR; LT; LU; LV; MD; MG; MN; MW;
MX; NO; NZ; PL; PT; RO; RU; SD; SE; SI; SK; TJ; TT; UA; UZ; VN; SD; SZ;
UG; AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF;
BJ; CF; CG; CI; GN; ML; MR; NE; SN; TD; TG
Publication Language: English
Fulltext Word Count: 102273

English Abstract
Polypeptide antigens are disclosed which are immunoreactive with sera
from individuals having a non-A, non-B, non-C, non-D, non-E Hepatitis,
herein designated Hepatitis G virus (HGV). Corresponding genomic-fragment
clones containing polynucleotides encoding the open reading frame
sequences for the antigenic polypeptides are taught. The antigens are
useful in diagnostic methods for detecting the presence of HGV in test
subjects. The antigens are also useful in vaccine and antibody
preparations. In addition, the entire coding sequences of two HGV
isolates are disclosed. Methods are presented for nucleic acid-based
detection of HGV in samples and also methods for the isolation of further
genomic sequences corresponding to HGV.

French Abstract
L'invention concerne des antigenes polypeptidiques qui sont imunoreactifs
avec des serums provenant de personnes ayant une hepatite non A, non B,
non C, non D, non E, designee ici virus de l'hepatite G (HGV). Des clones
de fragments genomiques correspondants contenant des polynucleotides
codant les sequences de structures a lecture directe provenant de
polypeptides antigeniques sont egalement concernes. Les antigenes sont
utiles dans des procedes diagnostics pour la detection de la presence du
HGV dans des sujets soumis aux tests. Les antigenes sont egalement utiles
dans des preparations de vaccins et d'anticorps. De plus, toutes les
sequences de codage des deux isolats HGV sont decrites. L'invention
decrit egalement la detection basee sur l'acide nucleique de HGV dans des
echantillons, ainsi que des procedes permettant d'isoler d'autres
sequences genomiques correspondant a HGV.

Patent and Priority Information (Country, Number, Date):
Patent: ...19951130
Fulltext Availability:
Detailed Description

Detailed Discription
... antigenic determinant defined as the specific portion of an antigen with which the antigen binding portion of a specific antibody interacts.

10. An antigen or epitope is "specifically immunoreactive" with HGV...
case of large coding sequences, synthesized by a series of cloning steps
involving a tandem array of multiple oligonucleotide fragments
corresponding to the coding sequence (Crea; Yoshio et al.; Eaton et al.).
Oligonucleotide coding...
Publication year: 1995

1/3,AB,K/6 (Item 2 from file: 349)
DIALOG(R)File 349:PCT Fulltext

00373128
MARKERS FOR DETECTION OF CHROMOSOME 16 REARRANGEMENTS
MARQUEURS UTILISES POUR LA DETECTION DE REARRANGEMENT DU CHROMOSOME 16
Patent Applicant/Assignee:
THE REGENTS OF THE UNIVERSITY OF MICHIGAN
THE BOARD OF REGENTS UNIVERSITY OF TEXAS SYSTEM
Inventor(s):
LIU Pu
COLLINS Francis S
SICILIANO Michael J
CLAXTON David
Patent and Priority Information (Country, Number, Date):
Patent: WO 9504067 A1 19950209
Application: WO 94US8530 19940726 (PCT/WO US9408530)
Priority Application: US 9399869 19930729

Designated States: CA; JP; AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LU;
MC; NL; PT; SE
Publication Language: English
Fulltext Word Count: 20901

English Abstract
The breakpoints of the pericentric inversion of chromosome 16 have been
cloned. Two genes, one at each breakpoint, have also been identified, as
well as several forms of the inversion 16 fusion gene. Diagnostic
applications for chromosome 16 abnormalities and, particularly acute
myeloid leukemia, are also within the scope of the present invention. The
figure is a diagrammatic representation of the locations of the human
genomic chromosome 16p content of hybrid cells and recombinant clones.

French Abstract
On a clone les points de fracture de l'inversion pericentrique du
chromosome 16. On a egalement identifie deux genes, un a chaque point de
fracture, ainsi que plusieurs formes du gene de fusion du chromosome
d'inversion 16. L'invention porte egalement sur les applications
diagnostiques pour les anomalies du chromosome 16 et, particulierement,
la leucemie myelogene aigue. La figure 1A est une representation
schematique des emplacements du contenu du chromosome genomique humain
16p des cellules hybrides et des clones de recombinaison.

Patent and Priority Information (Country, Number, Date):
Patent: ...19950209
Fulltext Availability:
Detailed Description

Detailed Discription
... acid" as used herein is

.35 intended to mean natural or synthetic linear and sequential arrals of nucleotides and nucleosides, e.g. in cDNA, genomic DNA (gDNA), mRNA,
and RNA, oligonucleotides, oligonucleosides, and...is an associated
deletion centromeric to the p arm breakpoint, which would truncate the 5'
portion of MYH1 1.

Primers were designed from the middle of the CBFB coding sequence and
the 3' region of...
Publication year: 1995

1/3,AB,K/7 (Item 3 from file: 349)

DIALOG(R)File 349:PCT Fulltext
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00350844
POSITIONAL SEQUENCING BY HYBRIDIZATION
SEQUENCAGE PAR HYBRIDATION POSITIONNELLE
Patent Applicant/Assignee:
TRUSTEES OF BOSTON UNIVERSITY
Inventor(s):
CANTOR Charles
PRZETAKIEWICZ Marek
Patent and Priority Information (Country, Number, Date):
Patent: WO 9411530 A1 19940526
Application: WO 93US10616 19931105 (PCT/WO US9310616)
Priority Application: US 92972012 19921106; US 93110691 19930823
Designated States: JP; AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LU; MC;
NL; PT; SE
Publication Language: English
Fulltext Word Count: 23167

English Abstract
This invention is directed to methods and reagents useful for sequencing
nucleic acid targets utilizing sequencing by hybridization technology
comprising probes, arrays of probes and methods whereby sequence
information is obtained rapidly and efficiently in discrete packages.
That information can be used for the detection, identification,
purification and complete or partial sequencing of a particular target
nucleic acid. When coupled with a ligation step, these methods can be
performed under a single set of hybridization conditions. The invention
also relates to the replication of probe arrays and methods for making
and replicating arrays of probes which are useful for the large scale
manufacture of diagnostic aids used to screen biological samples for
specific target sequences. Array created using PCR technology may
comprise probes with 5'-and/or 3'-overhangs.

French Abstract
Cette invention se rapporte a des procedes et a des reactifs utilises
dans le sequencage de cibles d'acide nucleique utilisant la technique de
sequencage par hybridation comprenant des sondes, des ensembles de sondes
et des procedes au moyen desquels on obtient rapidement et efficacement
des informations de sequences en paquets individuels. Ces informations
peuvent etre utilisees dans la detection, l'identification, la
purification et le sequencage complet ou partiel d'un acide nucleique
d'une cible particuliere. Lorsqu'ils sont associes a une etape de
ligation, ces procedes peuvent etre effectues dans des conditions
d'hybridation reunies en un seul ensemble. L'invention se rapporte

egalement a la replication d'ensembles de sondes et a des procedes de fabrication et de replication d'ensembles de sondes qui sont utilises dans la production industrielle de supports de diagnostics, ces derniers etant utilises pour examiner des echantillons biologiques pour des sequences de cibles specifiques. Les ensembles obtenus par la technique de l'ACP (amplification en chaine de la polymerase) peuvent comporter des sondes avec des elements en porte-a-faux en position 5' et/ou 3'.

Patent and Priority Information (Country, Number, Date):
Patent: ...19940526
Fulltext Availability:
Detailed Description
Claims

Detailed Discription
... length n is immobilized as an ordered array on a solid support and an unknown DNA sequence is hybridized to this array (K.R. Khrapko et al., J. DNA Sequencing and Mapping 1:375-88, 1991). The...a 5' overhang or (B) a 3' overhang.

Figure 4 Preparation of a random probe array .
Figure 5 Single nucleotide extension of a probe hybridized with a target nucleic acid using DNA polymerase and a...Preferably, D is between about 3-20 nucleotides and S is between about 3-20 nucleotides and the entire array is fixed to a solid support which may be composed of plastics, ceramics, metals, resins...that C is between about 7-20 nucleotides and R is between about 3-10 nucleotides .

Arrays may comprise about 4R different probes, but in certain applications, an entire array of every...site(s) of a restriction enzyme (on one or both sides), synthesizing an array of primers each compliementary to a portion of the constant sequence of the Y terminus, hybridizing the two arrays together to form...target to the first nucleic acid of the hybrid, hybridizing the ligated hybrid with an array of oligonucleotides with random nucleotide sequences, ligating the hybridized oligonucleotide to the second nucleic acid of the ligated hybrid, isolating...depicted in Figure 2. It is different from any other because it uses a duplex oligonucleotide array with Y-ended single-stranded overhangs. The duplex portion of each DNA shown is constant...and the hybridization conditions used, can all be varied, using the initial set of cloned DNA probes. Once the sort of array that works best is determined, a complete and fully characterized array can then be constructed...contain the desired 5 or 6 base ' variable overhang adjacent to a unique 15 base DNA sequence.

The master array consists of a set of streptavidin bead-impregnated plastic coated metal pins, each of which...88:189-93, 1991).

Example 6
Positional sequencing by hybridization with a nested set of DNA sa Thus far described arrays have been very inefficiently utilized because with only a single target nucleic acid, only a...to the known sequence of the target, as revealed by its hybridization position on an oligonucleotide array . For example, an array of 4n single-stranded overhangs of the type NAGCTA 3', as shown in the Figure...in essence doing a bit of four color DNA sequencing at each site on the oligonucleotide array . For example, as shown in Qpue 9, for the sequence (PULT, such an approach would...

Claim
... R flanked by the cleavage sites of a restriction enzyme; b) synthesizing an array of primers each compliementary to a portion of the constant sequence of the Y-terminus, hybridizing the two arrays together to form...support comprises streptavidin.

29. The method of claim 27 wherein the nucleic acids of the array are between about 15-30 nucleotides in length and the nucleic acids of the set are between about 10-25 nucleotides...62 wherein DJs between about 3-20 nucleotides and S is between about 3-20 nucleotides .

64. The array of claim 62 which is fled to a solid support wherein the solid support is...
Publication year: 1994

1/3,AB,K/8 (Item 4 from file: 349)
DIALOG(R)File 349:PCT Fulltext

00333369
OLIGONUCLEOTIDE LIBRARIES USEFUL FOR PRODUCING PRIMERS
BIBLIOTHEQUES D'OLIGONUCLEOTIDES UTILES POUR LA PRODUCTION D'AMORCES
Patent Applicant/Assignee:
STRATAGENE
SORGE Joseph A
SHOEMAKER Daniel
Inventor(s):
SORGE Joseph A
SHOEMAKER Daniel
Patent and Priority Information (Country, Number, Date):
Patent: WO 9320096 A1 19931014
Application: WO 93US3230 19930402 (PCT/WO US9303230)

Priority Application: US 92863412 19920403
Designated States: CA; JP; US; US; US; AT; BE; CH; DE; DK; ES; FR; GB; GR;
IE; IT; LU; MC; NL; PT; SE
Publication Language: English
Fulltext Word Count: 20224

English Abstract
An oligonucleotide library is described that is useful for producing an oligonucleotide of preselected sequence comprising a plurality of oligonucleotide members comprising one or more oligonucleotide species
and having the compositional formula: (X)a(N)b; wherein X represents a
non-degenerate nucleotide base and N represents a degenerate nucleotide
base; "a" represents the number of non-degenerate nucleotide positions
and is from 3 to 8; "b" represents the number of degenerate nucleotide positions and is from 0 to 4 but not greater than "a"; and wherein each of the oligonucleotide species is capable of forming a hybridization complex with at least one other of the oligonucleotide species in the library such that a single ligation event of the hybridization complex with another hybridization complex derived from the library produces a
ligation reaction product comprising greater than 12 contiguous nucleotide base pairs.

French Abstract
On decrit une bibliotheque d'oligonucleotides qui est utile pour la production d'un oligonucleotide a sequence preselectionnee dotee de plusieurs membres d'oligonucleotides comprenant une ou plusieurs especes
d'oligonucleotides et presentant une formule de composition (X)a(N)b; ou
X represente une base de nucleotide non degeneree et N represente une
base de nucleotide degeneree; "a" represente le nombre de positions de
nucleotides non degeneres et varie de 3 a 8; "b" represente le nombre de
positions de nucleotides degeneres et varie de 0 a 4 mais ne depasse pas
"a"; et ou chacune des especes d'oligonucleotides est a meme de former un
complexe d'hybridation avec au moins une autre des especes d'oligonucleotides presente dans la bibliotheque de maniere qu'une seule
liaison d'extremites franches du complexe d'hybridation avec un autre complexe d'hybridation provenant de la bibliotheque donne un produit de
reaction de liaison d'extremites franches qui comprend plus de douze paires de bases de nucleotides contigues.

Patent and Priority Information (Country, Number, Date):
Patent: ...19931014
Fulltext Availability:
Detailed Description

Detailed Discription
... PCR of a 980 base pair Wp) fragment from an M13mp18 using a primer
pair (primers A and B). The lower portion of Figure 3 illustrates the agarose gel analysis showing that the 980 bp PCR product...for the manipulative step of phosphDrylation.

Preferred kits contain organized enclosures such that the different oligonucleotides are distributed in a preselected array . For example, a 96-well microtiter tray is an enclosure that provides an array of...
Publication year: 1993

1/3,AB,K/9 (Item 5 from file: 349)
DIALOG(R)File 349:PCT Fulltext
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00213537
A MODIFIED GAMMA INTERFERON, DNA SEQUENCES ENCODING IT AND PROCESSES FOR
PRODUCING IT
INTERFERON GAMMA MODIFIE, SEQUENCES D'ADN CODANT POUR CELUI-CI E T SES
PROCEDES DE PRODUCTION
Patent Applicant/Assignee:
BIOGEN NV
ALLET Bernard
Inventor(s):
ALLET Bernard
Patent and Priority Information (Country, Number, Date):
Patent: WO 8504186 A2 19850926
Application: WO 85EP109 19850316 (PCT/WO EP8500109)
Priority Application: GB 846910 19840316; GB 8413297 19840524
Designated States: AT; BE; CH; DE; FR; GB; JP; LU; NL; SE; US
Publication Language: English
Fulltext Word Count: 7094

English Abstract
A amino-DELTA3-gamma interferon, DNA sequences encoding it, and methods
of producing it. This amino-DELTA-3-gamma interferon is soluble, easily
purifiable, highly stable and has at least a substantially similar level of biological activity as mature IFN-gamma.

French Abstract
Interferon amino-DELTA3-gamma, sequences d'ADN codant pour celui- ci et
ses procedes de production. Cet interferon amino-DELTA-gamma est soluble,
facilement purifiable, tres stable, et comporte au moins un niveau

d'activite biologique essentiellement similaire a celui de l'IFN-gamma
mur.

Patent and Priority Information (Country, Number, Date):
Patent: ...19850926
Fulltext Availability:
Detailed Description

Detailed Discription
... following detailed description is set forth.

In the description, the following terms
are employed:

-10 DNA Sequence -- A linear array of nucleo tides connected one to
the other by phosphodiester bonds ...the synthesis of a DNA sequence
lacking those 9-nucleotides.

We hybridized the above-described primer to the single-standed DNA
portion of our renatured DNA, described above (Step (d), Figure 2). We
affected this hybridization in...
Publication year: 1985

1/3,AB,K/10 (Item 1 from file: 654)
DIALOG(R)File 654:US Pat.Full.

03033023
Utility
METHOD OF DETECTING AND DISCRIMINATING BETWEEN NUCLEIC ACID SEQUENCES

PATENT NO.: 5,981,176
ISSUED: November 09, 1999 (19991109)
INVENTOR(s): Wallace, R. Bruce, Greenbrae, CA (California), US (United
States of America)
ASSIGNEE(s): City of Hope, (A U.S. Company or Corporation), Duarte, CA
(California), US (United States of America)
[Assignee Code(s): 23857]
APPL. NO.: 8-193,039
FILED: February 04, 1994 (19940204)
PCT: PCT-US92-05133 (WO 92US5133)
Section 371 Date: February 04, 1994 (19940204)
Section 102(e) Date: February 04, 1994 (19940204)
Filing Date: June 17, 1992 (19920617)
Publication Number: WO93-25563 (WO 9325563)
Publication Date: December 23, 1993 (19931223)

This application is a 371 of PCT-US92-05133, filed Jun. 17, 1992.

This invention was made with government support under Grant No. HG00099
awarded by the National Institutes of Health. The government has certain
rights in the invention.

FULL TEXT: 747 lines

ABSTRACT

The present invention is directed to a method for detecting the presence or
absence of any specific target nucleic acid sequence contained in a sample.
The target sequence can be present in the sample in a relatively pure form
or as a component of a member of a mixture of different nucleic acids. The
method of the invention utilizes a novel primer design. The sequence of the
novel primer is composed of two portions, the 3' portion is a primer
specific for the desired nucleic acid sequence and the 5' portion is
complementary to preselected nucleic acid sequence. Extension of the 3'
portion of the primer with a labeled deoxynucleosides triphosphate
yields a labeled extension product if, but only if, the template includes
the target sequence. The labeled extension product is detected by
hybridization of the 5' portion to the preselected sequence. The
preselected sequence is preferably bound to a solid support as one member
of a grid having a group of sequences.

...December 23, 1993 (19931223)

ABSTRACT

... primer design. The sequence of the novel primer is composed of two
portions, the 3' portion is a primer specific for the desired nucleic
acid sequence and the 5' portion is complementary to preselected nucleic
acid sequence. Extension of the 3' portion of the primer with a labeled
deoxynucleosides triphosphate yields a labeled extension product if, but
only if, the...
... novel primer design. The sequence of the primer is composed of two
portions, the 3' portion is a primer specific for the target nucleic
acid sequence and the 5' portion is complementary to a preselected nucleic

acid sequence. Extension of the 3' portion of the primer with labeled deoxynucleosides triphosphate yields a labeled extension product if, but
only if, the template...on templates which may or may not include a target
nucleic acid sequence. The 3' portion of the primer is complementary to
a portion of the template adjacent the target sequence. The 5' portion of the primer is complementary to a different preselected nucleic acid
sequence. Extension of the 3' portion of the primer with a labeled deoxynucleoside triphosphates yields a labeled extension product if, but
only if, the...
... initiate nucleic acid synthesis by a template dependent polymerase such
as a DNA polymerase. The primer is complementary to a portion of a
template nucleic acid.

"Primer extension" refers to the process of elongation of a primer on a
nucleic acid template...invention is described by reference to the Figures.
As shown by FIG. 1, the 3' portion of the primer is complementary to a
sequence adjacent a target sequence which may or may not be present in a
sample. The 5' portion of the primer is complementary to a known or
preselected sequence preferably immobilized on a solid support and...

... the primer may have any desired number of nucleotides. The number of
nucleotides in each portion of the primer may be the same or different. Preferably each portion of the primer contains from about 10 to about
100 nucleotides. The word "about" indicates a variance e...As specifically
depicted by FIG. 2, the amplification product is subjected to hybridization
with a primer which includes a 3' portion complementary to the "A-T"
allele which is then subjected to extension with labeled dNTP...

...dCTP or dGTP.

The labeled primer extension product is screened by hybridization of the
5' portion of the labeled primer with the solid support depicted by FIG. 3. Each location on the array of sequences...sequence of the TYR gene
with its 3' nucleotide immediately flanking the polymorphic base. This
portion of the ASPE primer participates in the primer extension reaction. Y sequence is extended by the Ampli-Taq DNA...

I claim:

1. An allele specific primer having a 3' portion and a 5' portion wherein said 3' portion is complementary to a target sequence adjacent...

... the preselected nucleic acid sequence is an oligonucleotide immobilized
at a preselected location in an array of immobilized oligonucleotides on a solid support.

4. A method for identifying an allele ...nucleic acid sample which may
include a target nucleic acid sequence,
(ii) an allele specific primer having a 3' portion and a 5' portion wherein said 3' portion is complementary to a target nucleic acid...the
preselected nucleic acid sequence is an oligonucleotide immobilized at a
preselected location in an array of immobilized oligonucleotides on a solid support.

6. The method of claim 4, wherein said nucleic acid sample...

... claim 6, wherein said target nucleic acid sequences are alleles of one
another, the 3' portion of said primer is positioned immediately ... the preselected nucleic acid sequences is an oligonucleotide immobilized at
a preselected location in an array of immobilized oligonucleotides .

11. The solid support of claim 8, wherein the length, base composition,
and percentage of...

1/3,AB,K/11 (Item 2 from file: 654)
DIALOG(R)File 654:US Pat.Full.

03012564
Utility
OLIGONUCLEOTIDE CONSTRUCTS AND METHODS FOR THE GENERATION OF SEQUENCE
SIGNATURES FROM NUCLEIC ACIDS

PATENT NO.: 5,962,221
ISSUED: October 05, 1999 (19991005)
INVENTOR(s): Caetano-Anolles, Gustavo, 1320 Beacon Hill La., Knoxville, TN
(Tennessee), US (United States of America), 37919
[Assignee Code(s): 68000]
EXTRA INFO: Assignment transaction [Reassigned], recorded September 5,

1995 (19950905)
APPL. NO.: 8-489,269
FILED: June 09, 1995 (19950609)

RELATED PATENT APPLICATIONS

This application is a continuation-in-part application of pending application Ser. No. 08-139,459 (the "second parent application"), filed Oct. 20, 1993, which is in turn a continuation-in-part application of application Ser. No. 08-006,380, (the "first parent application") filed Jan. 19, 1993 entitled "DNA Amplification Fingerprinting", which issued as U.S. Pat. No. 5,413,909 on May 9, 1995. Both parent applications are incorporated herein by reference.

FULL TEXT: 1231 lines

ABSTRACT

Novel oligonucleotides for amplification and profiling of nucleic acid templates are disclosed. Enhancements of nucleic acid fingerprinting methods are disclosed.

... In one embodiment, separation of DAF products by sequence polymorphism is performed by hybridization to oligonucleotide arrays which are bound to a solid support. The solid support may be any support which will maintain the structure of the oligonucleotides of the arrays and may be a membrane or glass or magnetic beads, for example.

The DAF technology...real time separation of amplification products such as by CE, or removed from a bound oligonucleotide in an oligonucleotide array , is useful to distinguish between closely related templates. Amplification products separated by length or by...suitable process for separation of DAF products by sequence polymorphism is by the use of oligonucleotide arrays bound to solid supports.

An amplified DAF sample is labelled and hybridized with a two-dimensional array of surface-bound oligonucleotides . Alternatively, the array can be composed of particles containing bound oligonucleotides. These particles may be beads. The beads and analyzed for positive hybridization signals.

The number of oligonucleotides in an array may vary from few to a few hundred or thousands, depending on the ability to...

...that alter the amplification with arbitrary primers or alter the ability to hybridize to the oligonucleotide probes of the array are expected to produce specific changes in the resulting "hybridization fingerprint". These changes are seen...

...through amplification with arbitrary oligonucleotide primers, the second through hybridization of amplified products with an array of short oligonucleotide primers. During the first step, a complex genome such as soybean or human (containing about...

... array will depend on the length of the hybridization probes and on the number of oligonucleotides in the array . For ...nucleotides in length. The unseparated DAF fragment products are permitted to anneal to the bound oligonucleotides in the array . Thus, because the DAF products will anneal to oligonucleotides based on the complementary sequences of...and could reveal similarities or differences between the nucleic acid hybridization profiles. The use of oligonucleotide arrays is described in Chetverin, " Oligonucleotide Arrays ", Biotechnology, 12:1093-1099 (1994), which is incorporated herein by reference.

The DAF methodology, including...decrease polymorphic content or target specific genomic regions. For example, primers were derived from sequence arrays in repetitive DNA , such as SSRs present in microsatellites. The advantage of targeting these highly polymorphic regions is...DAF Products by Hybridization

Amplification products generated by DAF can be analyzed by hybridization to oligonucleotide arrays . The array is composed of a group of oligonucleotide probes arranged in a two-dimensional manner on...

...rupture of the nucleic acids by physical means, such as by sonication or ultraviolet light.

Oligonucleotide arrays can be prepared in a number of ways. For example, oligonucleotides can be synthesized by...EM, Case-Green SC, Elder

JK, Johnson M, Mir KU, Wang L, Williams JC (1994), Arrays of
Complementary Oligonucleotides for Analysing the Hybridization Behavior
of Nucleic Acids. Nucleic Acids Res. 22:1368-1373.
Weaver...
... wherein the nucleotides constitute combinations of the known 4 bases of
DNA, and wherein the portion of the oligonucleotide primers other than
the 3' single stranded end extending from the double stranded stem contain
identical...
?
?logoff
24jul00 14:11:31 User233832 Session D245.6
$10.28 0.697 DialUnits File340
$1.75 1 Type(s) in Format 4 (UDF)
$1.75 1 Types
$12.03 Estimated cost File340
$2.15 0.473 DialUnits File348
$16.05 3 Type(s) in Format 5 (UDF)
$16.05 3 Types
$18.20 Estimated cost File348
$2.38 0.500 DialUnits File349
$25.50 5 Type(s) in Format 5 (UDF)
$25.50 5 Types
$27.88 Estimated cost File349
$4.52 0.765 DialUnits File654
$1.90 2 Type(s) in Format 4 (UDF)
$1.90 2 Types
$6.42 Estimated cost File654
OneSearch, 4 files, 2.436 DialUnits FileOS
$0.20 TYMNET
$64.73 Estimated cost this search
$97.82 Estimated total session cost 16.280 DialUnits

Status: Signed Off. (23 minutes)